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TWENTY-NINTH YEAR

NOVEMBER 1948

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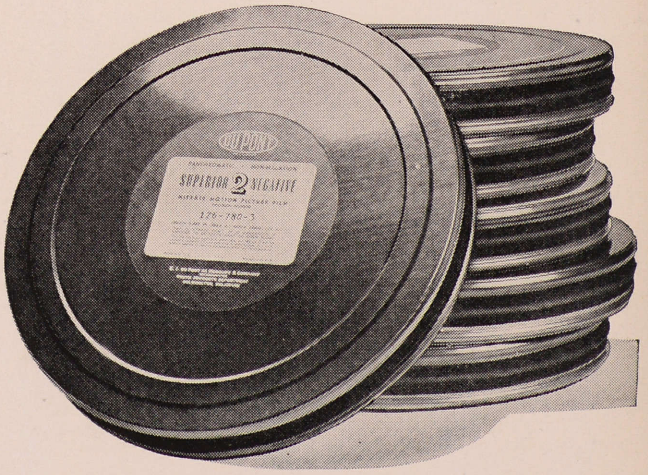

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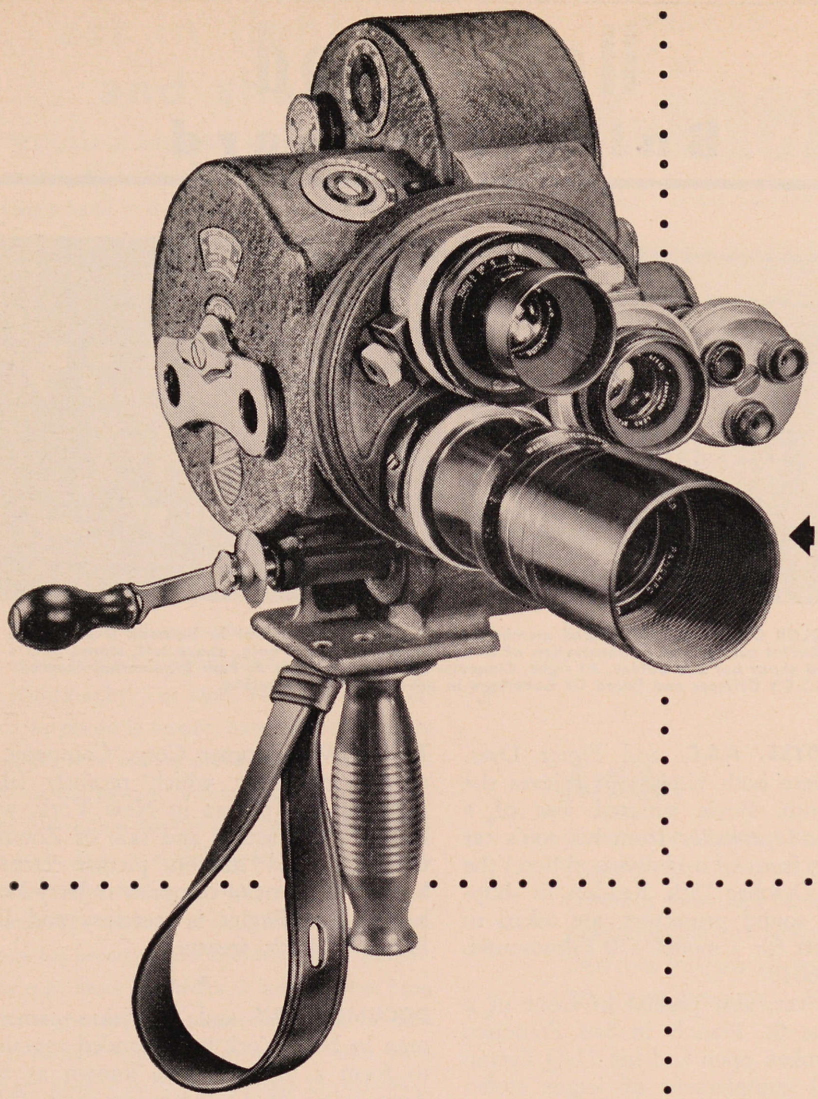

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Hollywood Bulletin Board

CINECOLOR CORPORATION hosted members of the A.S.C. at its plant in Burbank October 4th with a buffet supper and demonstration of latest Cinecolor films. Photo, above left, shows guests gathered about bar and buffet. At right, Cinecolor's Board Chairman A. Pam Blumenthal (seated) hosts A.S.C's Officers and Board Of Governors in advance of the meeting.

JOHN BOYLE, A.S.C. and Elmer Dyer, A.S.C., were both victims of thieves the past month. Boyle suffered loss of a Filmosound projector from his son's car parked in front of a Hollywood hotel the night of October 15th. Readers in shopping for sound projectors, are asked to be on alert for a model 170 Filmosound, serial 466018.

Dyer's car, also parked in front of a hotel—the St. Francis in San Francisco—was broken open and his 71-Q Eyemo with full complement of lenses stolen along with Dyer's entire wardrobe. Eyemo is a spider-turret model, serial 388415. Missing lenses are: 6″ f/4.5 Telekinic (Cooke), 4″ f/2.5 coated Cooke lens, 35mm. f/3.5 Zeiss, 2″ coated Kinar and a f/2.3 Baltar.

KARL FREUND, A.S.C., (left) presents Olle Comstedt, A.S.C., with first Spectra color meter off assembly line. In return Comstedt presented Freund with native Laplander's hat, souvenir of Comstedt's recent filming assignment in Lapland.

TELEVISION Zoomar Corp. Company, a new organization which recently filed incorporation papers in New York, will handle manufacture and sale of Zoomar television and motion picture camera lenses. President of company is Jerry Fairbanks. Jack Pegler is secretary and Dr. Frank G. Bach, treasurer.

•

DOCUMENTARY and television cameramen in New York have banded together to form a union, to be known as the Association of Documentary and Television Cameramen. Membership is open to all employed motion picture cameramen, assistants and helpers. Among the members are Robert Flaherty, honorary president; Roger Barlow, John Ferno, Alex Hammid, Jules Bucher, Lawrence Madison, Victor Solor and Al Mozell.

•

A COMMITTEE of A.S.C. members recently were given demonstration of a new television camera being introduced and marketed by Remington Rand, Inc., manufacturers of business machines. Camera,

(Continued on Page 397)

NOTICE TO SUBSCRIBERS

Effective with the January, 1949, issue the yearly subscription rate of the AMERICAN CINEMATOGRAPHER will be increased from $2.50 to $3.00 for U. S., Canada and the Pan-American Union; $4 foreign. This is the first time in magazine's 29 years of existence that subscription rate has been increased, but spiraling production costs finally has made this slight increase necessary. The single copy rate of 25 cents remains unchanged.

—Editor.

. . . art in lights and shadows

IT WOULD be impossible to apportion credit, in exactly the right amounts, to all individuals having a hand in the creation of a good picture. There is enough inner satisfaction in the happy result to go around.

Yet, it has always seemed to me that the men behind the cameras—the cinematographers—have never quite received their full share of credit from those outside the industry. They seem to be taken for granted by the public—a necessary appendage in this highly-publicized industry. But the facts are quite otherwise. The cinematographers have made immense and vital contributions to this most democratic of all art forms.

Actually, of course the history of motion pictures has been inseparably bound to the progress of photography. The ideas we conceive, the effects so painfully sought, have but one purpose—to be seen and recorded through the small lens of the motion picture camera. It is therefore imperative that the man behind the camera be more than a mere artisan. He must be a creative artist dealing in lights and shadows and moods. The camera, through constant improvement, has become a fine and delicate instrument. But even more important, I believe, have been the insight and the pioneering spirit of men who handle this instrument and who have helped bring it to its present stage of perfection.

—Darryl F. Zanuck,
25th Anniversary of A. S. C.

★

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ON THE COVER

PEVERELL MARLEY, A. S. C., (second man from left, standing) stops the camera while director David Butler and star June Haver discuss a scene for Warner Brothers' Technicolor musical, "Silver Lining." The crew, too, takes a keen interest in the problem at hand.—Photo by Jack Woods.

AMERICAN CINEMATOGRAPHER, established 1920, is published monthly by the A. S. C. Agency, Inc., 1782 N. Orange Dr., Hollywood 28, Calif. Entered as second class matter Nov. 18, 1937, at the postoffice at Los Angeles, Calif., under act of March 3, 1879. SUBSCRIPTIONS: United States and Pan-American Union, $2.50 per year; Canada, $2.75 per year; Foreign, $3.50. Single copies, 25 cents; back numbers, 30 cents; foreign single copies, 35 cents; back numbers, 40 cents. Advertising rates on application.

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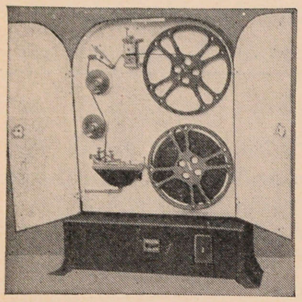

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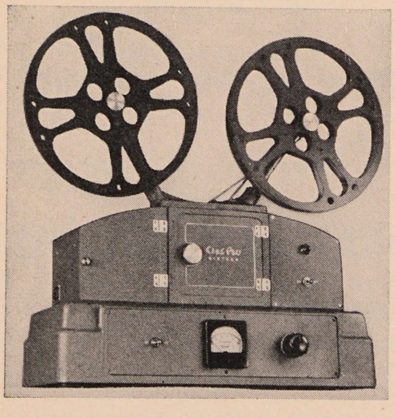

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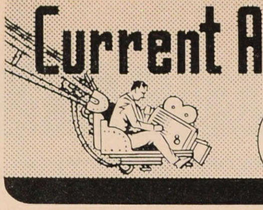


Current Assignments of A.S.C. Members

Major film productions on which members of the American Society of Cinematographers were engaged as directors of photography during the past month.

Allied Artists

- HARRY NEUMANN, "Stampede," with Rod Cameron, Gail Storm, Johnny Mack Brown. Lesley Selander, director.
- CARL STRUSS, "Bad Boy," with Lloyd Nolan, Jane Wyatt, James Gleason. Kurt Neuman, director.
- JACK MACKENZIE, "When A Man's A Man," (Windsor Prod.) with Guy Madison, Rory Calhoun and Cathy Downs. John Rawlins, director.

Columbia

- RUSSELL METTY, "Rough Sketch," (Horizon-Col.) with Jennifer Jones and John Garfield. John Huston, director.
- REX WIMPY, "Laramie," with Charles Starrett and Smiley Burnett. Ray Nazarro, director.
- CHARLES LAWTON, "The Doolin Gang," (subsequently changed to "Wild Bill Doolin"), with Randolph Scott, George MacReady and John Ireland. Gordon Douglas, director.
- VINCENT FARRAR, "Blondie Hits the Jack Pot," with Penny Singleton, Arthur Lake, et al. Ed Bernds, director.
- ARCHIE STOUT, "Bonanza!" with Glenn Ford, Ida Lupino and Edgar Buchanan. George Marshall, director.
- HENRY FREULICH, "The Devil's Henchmen," with Warner Baxter and Mary Beth Hughes. Seymour Friedman, director.

Independent

- JOHN ALTON, "Reign of Terror," (Walter Wanger) with Robert Cummings and Arlene Dahl. Anthony Mann, director.
- JACK GREENHALGH, "File 649, State Department," (Neufeld-Film lCassics) with Virginia Bruce and William Lundigan. Peter Stewart, director.
- JAMES BROWN, JR., "Zamba," (Fortune Films) with Jon Hall and June Vincent. Nate Watt, director.
- STANLEY CORTEZ, "The Man on the Eiffel Tower," (Allen & Tone) (Shooting in Paris on Ansco Color) with Charles Laughton, Franchot Tone, Burgess Meredith, et al. Irving Allen, director.
- MARCEL LEPICARD, "Alaska Patrol," (Burwood-Film Classics) with Richard Travis and Helen Westcott. Jack Bernhard, director.
- GILBERT WARRENTON, "Ride, Ryder Ride!" (Equity) with Jim Bannon and Peggy Stewart. Lew Collins, director.
- JACKSON ROSE, "Triple Cross," (Belsam-20th) with Tom Conway and Barbara Billingsley. Edward Cahn, director.
- LEE GARMES, "Roseanna McCoy," (Goldwyn-RKO) with Farley Granger and Joan Evans. Irving Reis, director.

M-G-M

- HARRY STRADLING, "Barkleys of Broadway," (Technicolor) with Fred Astair, Ginger Rogers and Oscar Levant. Charles Walters, director.
- ROBERT SURTEES, "Big Jack Horner," (subsequently changed to "Big Jack") with Wallace Beery and Marjorie Main. Richard Thorpe, director.
- GEORGE FOLSEY, "The Great Sinner," with Gregory Peck and Ava Gardner. Robert Siodmak, director.
- RAY JUNE, "The Secret Garden," with Margaret O'Brien and Dean Stockwell. Fred M. Wilcox, director.
- HAL ROSSON, "The Stratton Story," with with James Stewart and June Allyson. Sam Wood, director.

Monogram

- HARRY C. NEUMANN, "Hidden Danger," with Johnny Mack Brown, Raymond Hatton and Christine Larson. Ray Taylor, director.
- WILLIAM A. SICKNER, "Charlie Chan In Mexico," with Roland Winters, Keye Luke, Beverly Johns, et al. William Beaudine, director.
- WILLIAM SICKNER, "Bomba, the Jungle Boy," with John Sheffield and Peggy Ann Garner. Ford Beebe, director.

Paramount

- DANIEL FAPP, "A Mask For Lucretia," with Paulette Goddard, John Lund and MacDonald Carey. Mitchel Leisen, director.
- GEORGE BARNES, "Samson & Delilah," (Technicolor) with Hedy Lamarr and Victor Mature. Cecil B. DeMille, director.
- LEO TOVER, "Bitter Victory," (Hal Wallis) with Robert Cummings, Elizabeth Scott and Diana Lynn. William Dieterle, director.

R-K-O

- ROBERT DEGRASSE, "The Clay Pigeon," with Bill Williams and Barbara Hale. Richard Fleischer, director.
- MILTON KRASNER, "The Set Up," with Robert Ryan and Audrey Totter. Robert Wise, director.
- NICHOLAS MUSURACA, "Stagecoach Kid," with Tim Holt and Jeff Donnell. Lew Landers, director.

20th Century-Fox

- JOE MACDONALD, "Down To The Sea In Ships," with Richard Widmark, Cecil Kellaway and Dean Stockwell. Henry Hathaway, director.
- LEON SHAMROY, "Prince Of Foxes," (Shooting in Italy) with Tyrone Power, Orson Welles and Wanda Hendrix.
- HARRY JACKSON, "The Beautiful Blonde From Bashful Bend," (Technicolor) with Betty Grable and Cesar Romero. Preston Sturgess, director.
- RUSSELL HARLAN, "I Was A Male War Bride," (Shooting In Germany) with Cary Grant and Ann Sheridan. Howard Hawks, director.

United Artists

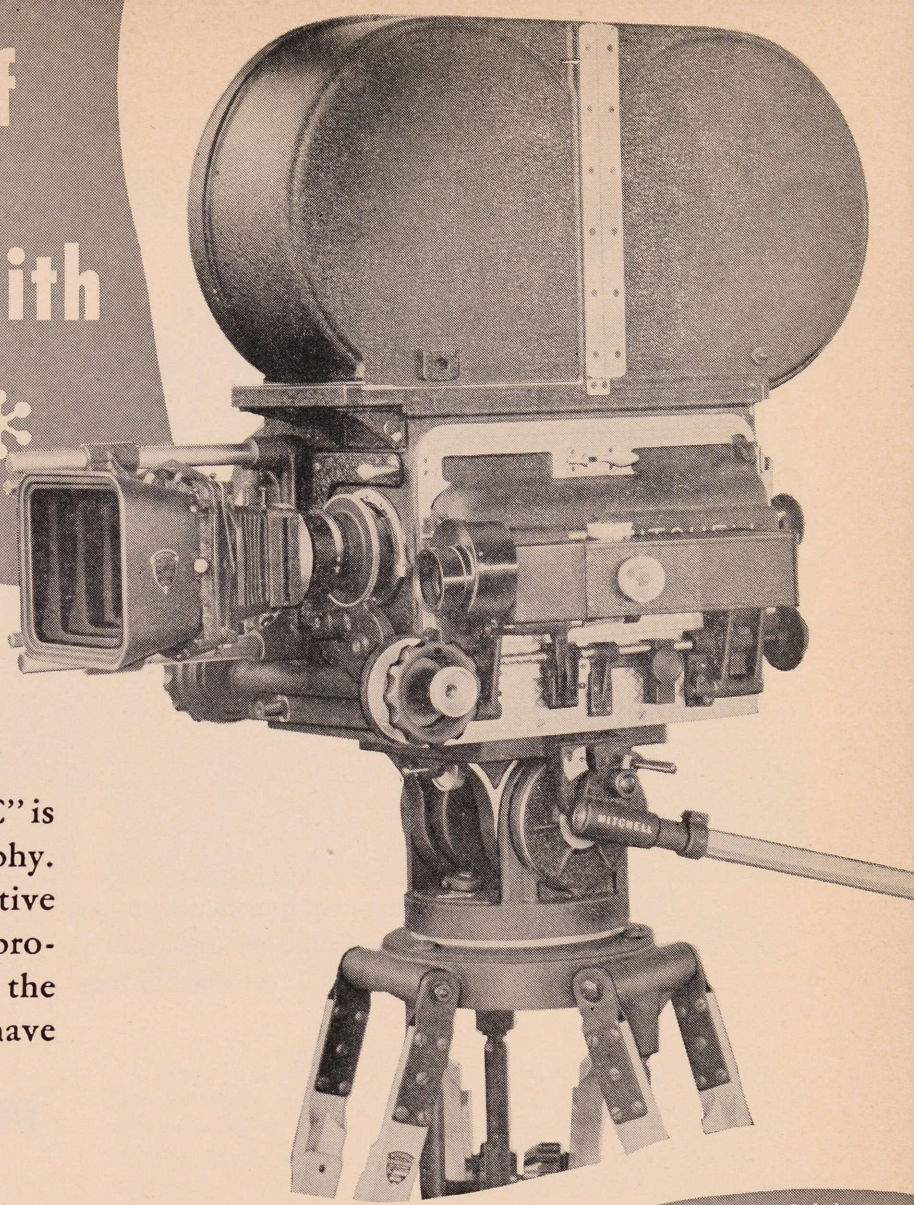
- WILLIAM MELLOR, "Too Late For Tears," (Hunt Stromberg Prod.) with Lizabeth Scott, Dan Duryea and Don Defore. Byron Haskin, director.
- ERNEST LASZLO, "Impact," (Popkin-U-A) with Brian Donlevy and Ella Raines. Arthur Lubin, director.

Universal-International

- MAURY GERTSMAN, "The Amboy Dukes," with Peter Fernandez, Barbara Whiting, et al. Maxwell Shane, director.
- WILLIAM DANIELS, "The Life Of Riley," (Brecher Prods.) with William Bendix and Rosemary DeCamp. Irving Brecher, director.

(Continued on Page 398)

The great films of Today are shot with a *Mitchell**



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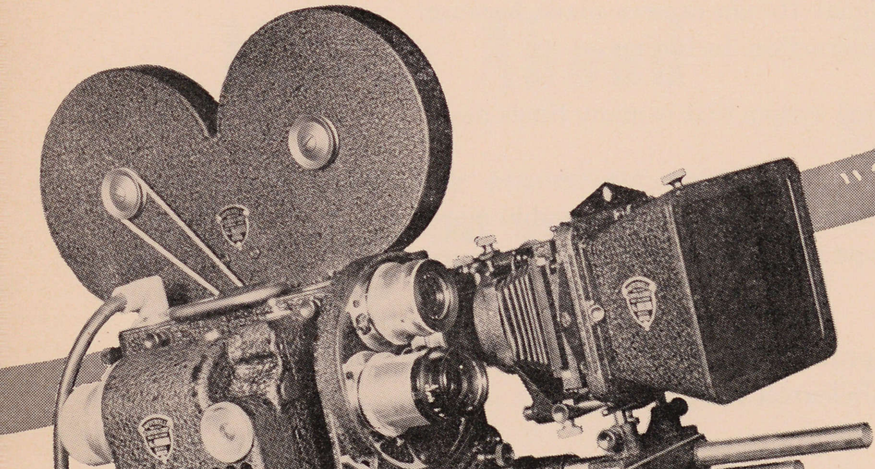

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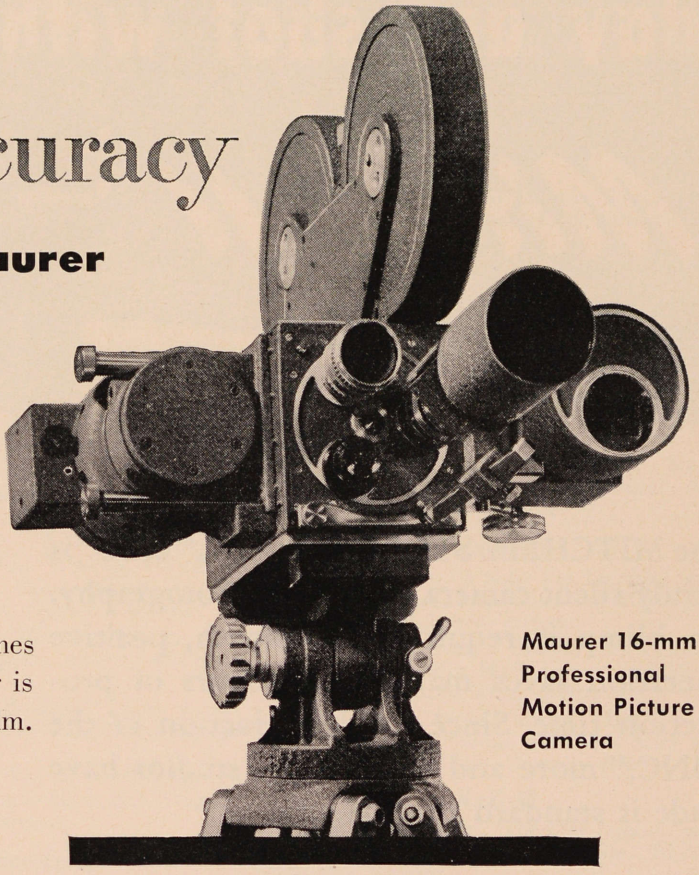

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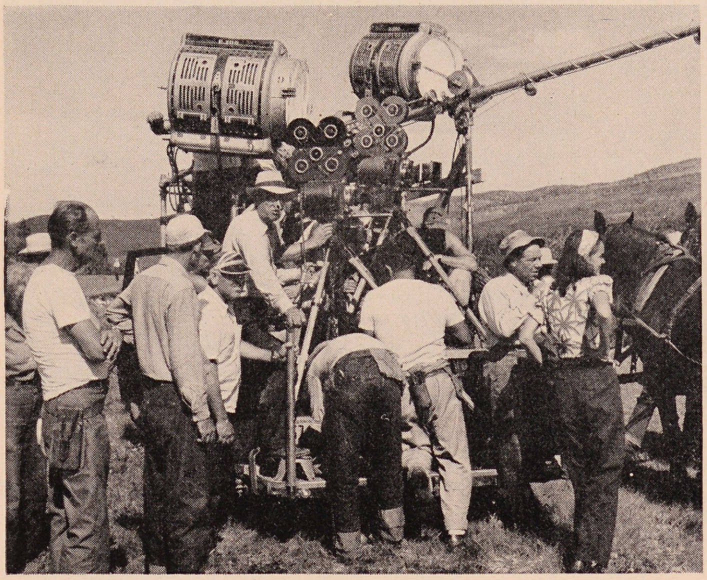
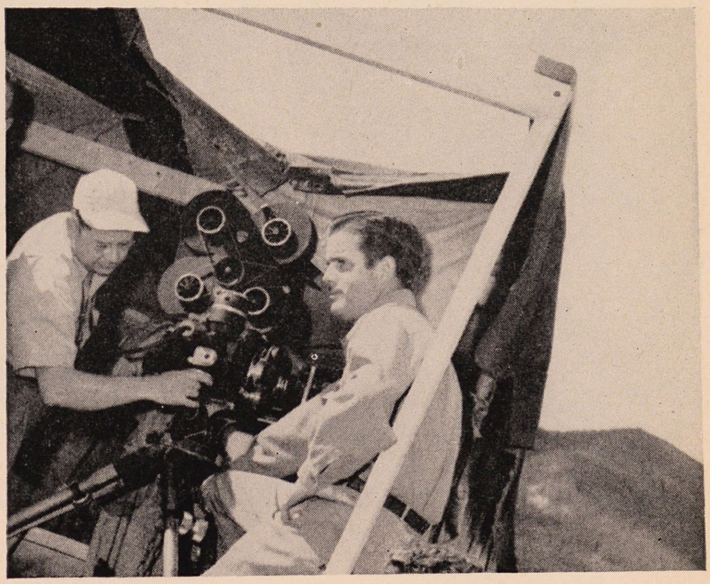


JOHN BOYLE, A.S.C., recently completed photography in Cinecolor on the Eagle-Lion production, "Northwest Stampede," starring James Craig. Boyle probably has more experience with Cinecolor than any other director of photography, was the first to advocate hard lighting for this process.



FRED JACKMAN, JR., A.S.C., has the distinction of being the first director of photography to use the new latensified Cinecolor film on the Nat Holt production, "Canadian Pacific." Jackman, along with John Boyle, is a Cinecolor cameraman of long experience.

Cinecolor Moves Ahead

Improved laboratory procedures enable Cinecolor to be shot with less light, effecting sharp economies in the production of color films.

By NORMAN KEANE

A NEW TYPE of photographic specialist is developing in Hollywood. He is the Cinecolor cameraman. He has been an important factor in the recent development of Cinecolor to a medium second only to Technicolor in the color field. Through careful study and continued use of the Cinecolor cameras, these men have greatly aided Cinecolor technicians to bring about the great improvements that we see today in the Cinecolor releases screened in the nation's theatres.

Ever since Cinecolor Corporation announced recently that, because of improved laboratory procedures, studios may now produce their feature films in Cinecolor at a cost of but 10% above that for black and white, the industry and its directors of photography have shown keener interest in this color process.

What has enabled Cinecolor to offer color production at lowered cost is an improved method of applying post-exposure treatment to the film which permits photography with less light, thereby greatly reducing lighting costs. The basic post-exposure technique had been developed earlier by DuPont's photo products laboratories and later applied by Paramount Pictures to the processing of its still negatives and also to its newsreel films. Cinecolor is the first color process to adopt the technique.

The process approximates what is known to the photographic layman as latensification. It involves the intensification of the latent image by a process of re-exposing the exposed negative to weak light for a fairly long period of time.

Although the Cinecolor Corporation has been in the business of processing color motion picture film for more than fifteen

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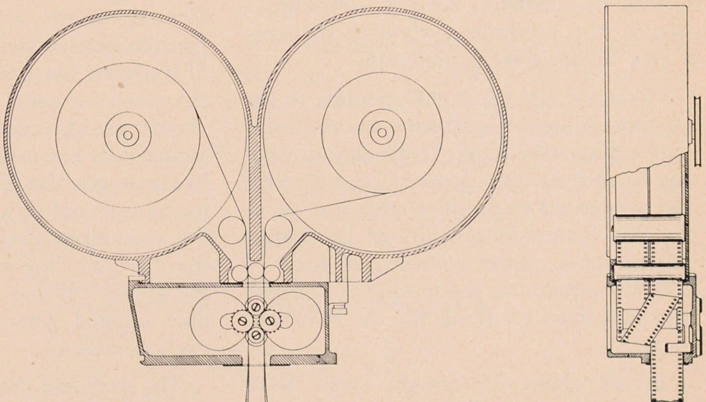
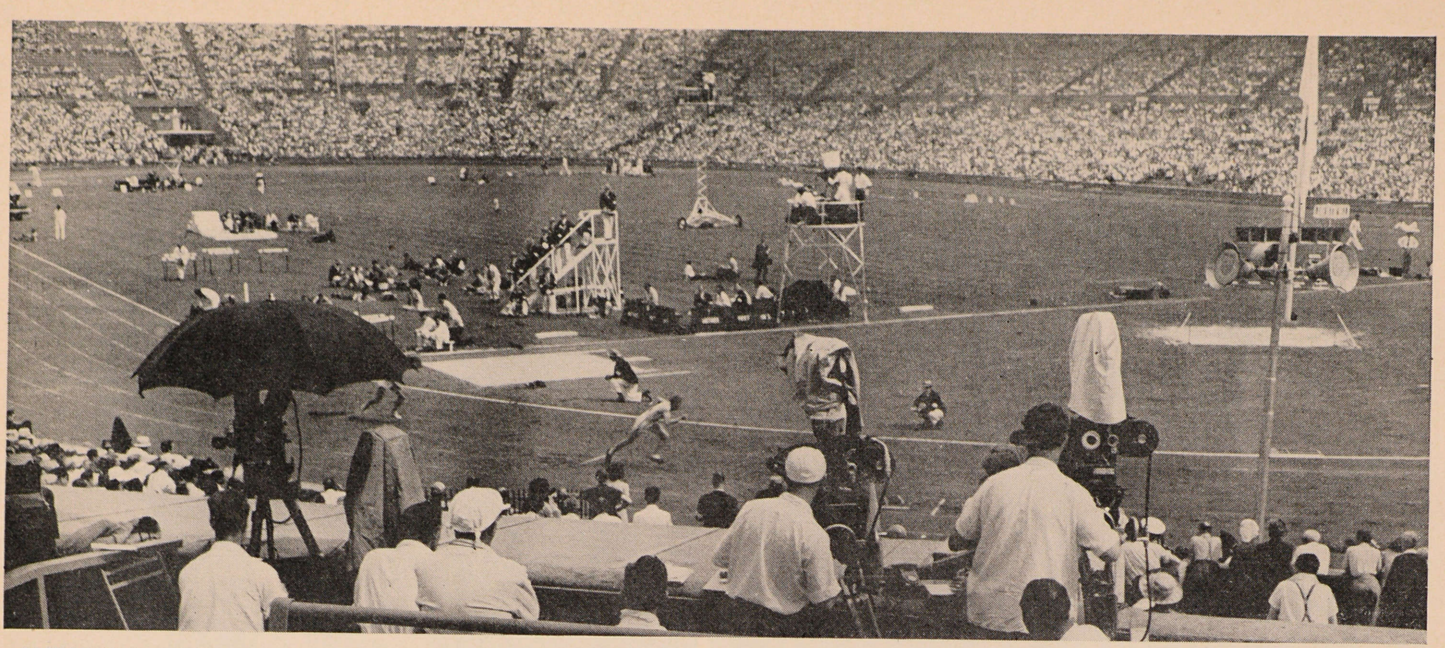


FURTHERING the economy of Cinecolor productions is this new 1,000 foot bipack film magazine which reduces frequency of reloading and saves up to 80% of film ordinarily lost in short ends. Diagram shows method of threading film in magazine.



BRITAIN'S famed Wembley Stadium where the principal 1948 Olympic Games events were staged. Camera crews were set up at strategic points around perimeter of the stadium and three special mobile steel camera towers were provided in the infield. In addition, electric-motored camera cars were used for making follow shots of athletes in the track events. It is estimated that more than 500,000 feet of film were exposed in the 50 or more motion picture cameras employed in the production of the all-color documentary film.—Photos courtesy "Film Industry," London.

Filming The Olympic Games

Britain's ace cinematographers were recruited to form the 25 camera crews that photographed the greatest combined production operation ever undertaken by the British film industry.

By FREDERICK FOSTER

SEVENTY-FIVE cameramen and twenty cameras specially adapted for the new British Technichrome bi-pack color film were employed in photographing "The IV Olympaid—The Glory Of Sport," exclusive motion picture record of the 1948 Olympics. The J. Arthur Rank Organization produced the film, setting up a new subsidiary company for the production headed by Castleton Knight, well-known British film producer with years of experience in newsreel production.

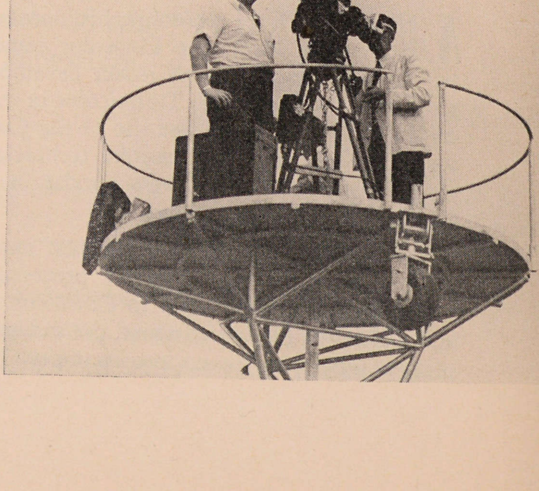
Paying a sum of 25,000 pounds to the Olympic Games Committee for exclusive film rights, the Rank Organization shut out all competition, domestic and foreign, and proceeded to produce what was to be the first feature-length film of the famed international sports contests. A total of 250,000 pounds is reportedly the budget that was fixed by Rank for the two-hour picture.

In all, about 25 camera crews were organized by recruiting cameramen from the British feature film industry and newsreel units. Two crews were sent to St. Moritz for the winter sports. Using a Mitchell and a Newall camera, they shot thousands of feet of Technicolor Monopack of the competitions held on the snow-covered mountains of Switzerland. Many of the cameramen had to learn to ski, not only to be able to shoot action pictures while skiing, but in order to be able to ascend the mountain heights with their cameras and gear.

A single Newall camera was used in Greece, where scenes were shot while guerilla battles were being fought in the hills above. On one occasion a plane was chartered for some aerial shots. The local "home guard," ever watchful for guerilla tactics, was not informed of the flight and had just got the film crew's plane nicely in the sights of its anti-aircraft guns, when the cameramen decided they had got all the material they wanted and returned to the airfield. It was some days later before they learned what a close call they had on that flight.

The resourcefulness of the camera crews was put to test more than once. In Greece when a good dolly shot was needed, and local film producers were unable to supply a satisfactory dolly and track, the Olympics camera crew improvised an old bomb truck, left over from the war, and had local carpenters make a 100 yard length of track from wooden planks. The same camera unit was also responsible for some slick improvisation that improved the glory of the Olympic Torch. The original

FROM PLATFORMS of three steel towers, cameramen made high angle shots of the various events according to a planned shooting script. The men in these towers as well as those manning the cameras set up around the track, were in constant telephone communication with the director of the production.



torch in Greece was fed by gas and the flame was almost invisible in sunlight; so a new fuel was devised that gave a colorful flame and a trail of smoke that proved quite impressive on color film. In the scenes shot in Greece, Stan Sayer, head of the unit, wanted a shot of the olive branch bursting into flame. His problem was to get the branch to burst into flame quickly when exposed to the rays of the sun at the focal point of a metal mirror; the answer was simply a bit of celluloid wrapped around the twig which immediately ignited when the magnified rays of the sun reached it.

When experimenting with magnesium powder in order to get a bright flame for the torch for the entry at Wembley, the magnesium got so hot it melted the torch. So a new torch was provided, this time fitted with a thick steel bowl for the magnesium. This provided the effect desired, but the poor runner was almost weighed down with it and had to make quite an effort to raise his arm to set off the gas-fed bowl of the flame in the Wembley stadium.

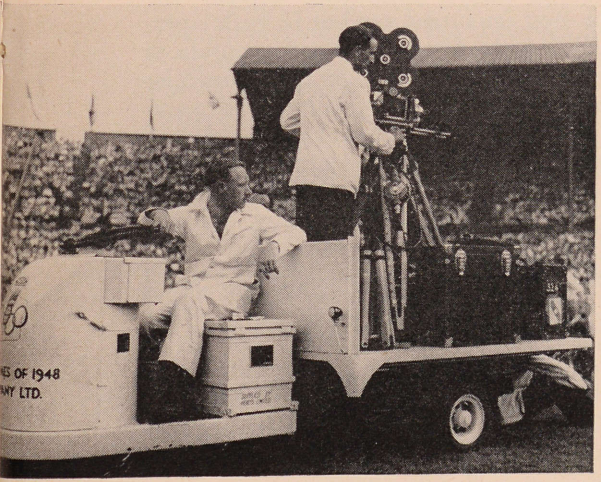
At Wembley, a great many camera positions were established. Three mobile tubular steel camera towers were used to obtain shots of events from a high angle. In addition to the cameras set up at fixed camera positions around the arena, two electric camera trucks were used to film trucking shots alongside the athletes taking part in track events. Camera pits were sunk at key positions to obtain effective shots of long jumps, pole vaults and other activities, while special platforms were built on the roof of the stadium for long shots.

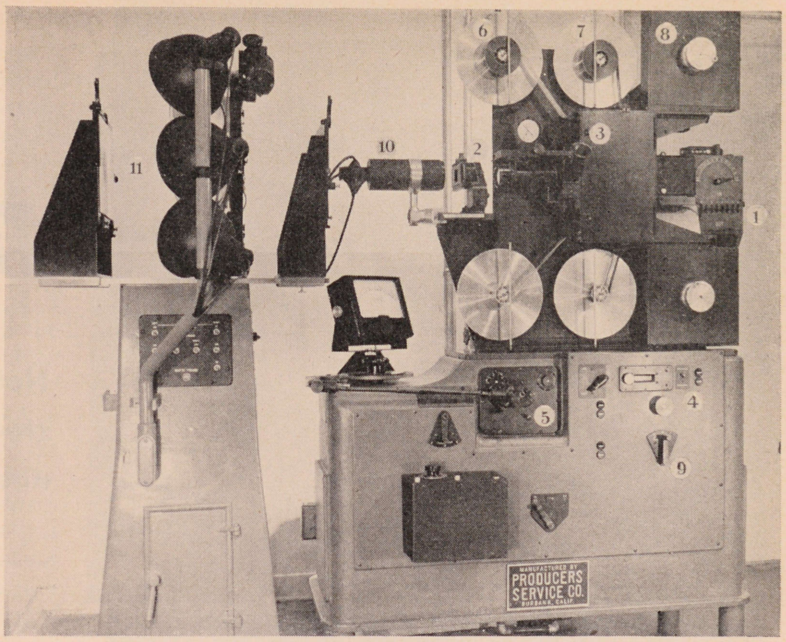
Cameras mounted on platform cars covered the marathon races and hand-held cameras went everywhere.

To film the opening ceremony, one camera crew went aloft in the special

(Continued on Page 395)

FAST, electric powered camera trucks like these enabled the cameramen to follow athletes competing in track events, also to race to any point within the stadium for a special shot when ordered by the production director through the special telephone intercommunicating system.





NEW CONTACT printer for special effects, designed by 20th Century-Fox Corp's. camera and optical technicians, greatly broadens scope of this company's special effects department. Figures indicate some of the more important structural and functional features:

1—Fade control keys.
2—Gear-driven wipe device.
3—Prism-type focuser.
4—Stop motion control button.
5—Voltage regulator for fades.
6—Master negative.
7—Matte film.
8—Negative raw stock.
9—Printer motor control
10—Printer light.
11—Reflected light source.

Contact Printer For Special Effects

Augmenting its optical printing equipment is this versatile contact printer designed by T-C-F's camera and optical department for producing a wide range of special effects.

By JAMES GORDON, A.S.C.

Special Effects Dept., Twentieth Century-Fox Studios

The men whose business it is to produce special effects photographically have long felt the need for a contact printer capable of performing a wide variety of cinematic effects. Such a printer has recently been completed for Twentieth Century-Fox by the Producers Service Company from designs and specifications developed and furnished by that studio's Camera and Optical departments. Operating with high efficiency and extreme simplicity, this contact printer will produce the following effects in either black and white or color:

- Fades, dissolves and wipes.
- Superimpose title text over action backgrounds.
- Montages.
- Split-screen, dual role scenes, etc.
- Double printing rain, fog, snow, etc.
- Traveling mattes.
- Tone-down scenes and matting.
- Ghost effects.
- Trailers.
- Quality corrective dupes.
- Dropped shadow title mattes, both sharp and soft detail.

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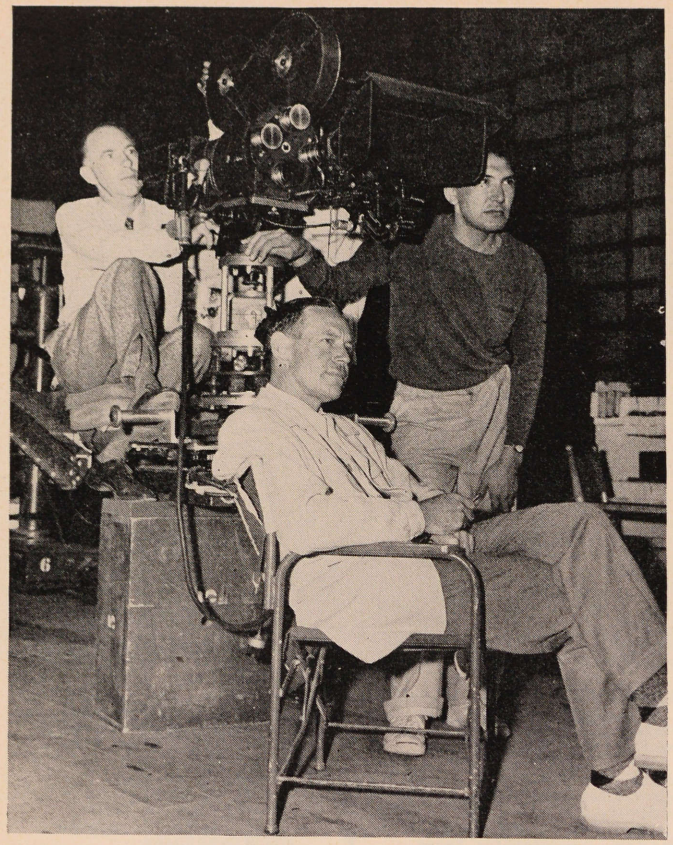

JOSEPH LaSHELLE, A.S.C. (foreground), director of photography on the Twentieth Century-Fox production "The Fan," and his camera crew—operating cameraman Don Anderson (left) and assistant Ray Mala. Using the mobile camera, LaShelle materially reduced shooting time on the production.

Exponent Of The Moving Camera

Not only does the mobile camera keep the story moving dramatically, but it has definite budget advantages as well, according to Joseph LaShelle, A.S.C.

By HERB A. LIGHTMAN

JOSEPH LaSHELLE, A.S.C., is a cameraman who likes to "get around"—cinematically speaking. Winner of the 1945 Academy award in black and white cinematography for his dramatic filming of "Laura," he is perhaps Hollywood's foremost exponent of the moving camera. His fluid photographic treatment of such photoplays as "Fallen Angel," "Hangover Square," "A Bell for Adano," "The Late George Apley," "The Foxes of Harrow" and "Deep Waters"—have earned him a reputation as one of Hollywood's top creative directors of photography.

LaShelle's emphasis on camera movement stems from a theory which he holds concerning the role of the camera in production. "The main function of the camera is to tell a story," he explains, "and so it cannot be merely a static spectator standing idly by while the action develops. It must move with that action and become a part of it—a participant, more or less."

He practices what he preaches. On a LaShelle picture, the camera is always mounted on a small, specially designed dolly—even for filming static closeups. This highly mobile camera mount permits a great freedom of movement with a minimum of disruption to set and lighting units—in fact, some of its maneuvers seem incredible when one considers the special problems inherent in moving camera shots. Aside from the ever-present necessity of follow-focus, there is the greatly complicated problem of proper lighting of the set and players as the camera moves about. In a moving camera shot, each new camera position or camera stop is a separate composition and must be given a finished lighting as such. From the cinematographer's point of view, this adds up to a real challenge.

From the production standpoint, however, the moving camera is an important asset. Not only does it help to keep the story moving dramatically (especially a static script like "George Apley"), but it has definite budget advantages, as well. Actually, several scenes can be laced together by means of proper camera movement and photographed as one, resulting in a definite economy of time, effort and expense. On LaShelle's latest picture for Twentieth Century-Fox, "The Fan," the production schedule was cut from 60 days to 42 days, mostly because of the skillful linking of separate scenes through camera movement.

Watching the LaShelle camera crew at work is really an experience. Operating cameraman Don Anderson rides the camera as if it were Seabiscuit coming down the home-stretch. Assistant cameraman Ray Mala (who some years ago distinguished himself in front of the camera in the title role of "Eskimo") goes through some strenuous acrobatics as he operates the follow focus lever with one hand, and a variable diffusion slide with the other. It's actually a toss-up as to whether the more interesting action is taking place on the set or behind the camera.

But Joseph LaShelle is more than just a "cameraman on wheels." His whole approach to motion picture photography has a style and freshness that adds immeasureably to any film story he photographs. His style is never twice the same, since he considers each vehicle a new challenge worthy of individual treatment. His versatility is apparent when one compares the wide range of moods created in his past assignments—the documentry realism of "Happy Land," the eery sophistication of "Laura," the smooth elegance of "The Late George Apley," the impending terror of "Hangover Square," and the smoldering drama of "The Foxes of Harrow."

Mood is perhaps the most important word in LaShelle's professional lexicon. To him, it is the first element to be considered in the conception of lighting and camera angle for a particular scene. "Mood takes precedence even over realism," he maintains, "because on the screen it is mood that draws the desired emotional reaction from the audience. In real life, for example, an amusing situation might take place in a drably furnished, dimly lighted locale—and it would still be funny. But the same situation realistically reproduced on the screen would fall flat because the dismal mood of the background would be at odds with the comedy situation. A brighter, crisper lighting style would be needed to set a mood that was correct for the action."

In approaching a new sequence, LaShelle decides upon the

(Continued on Page 394)

Lighting Players On The Set...

Careful choice of light units will enable the 16mm. industrial film producer to achieve high professional quality in lighting his sets.

By CHARLES LORING

THE PRODUCER of commercial or industrial motion pictures —whether he works in 16mm. or 35mm., color or black and white—must keep in mind the fact that any audience before which his pictures will be shown is accustomed to the smooth photographic quality of theatrical films, and more or less expects to see that same quality in any motion picture which he is asked to view. This, of course, throws a sizeable responsibility on the cameraman assigned to a commercial picture. Most cameramen know that the factor for which they may be most easily criticized is the way the players look on the screen; and so the lighting of players is of utmost importance, even in the commercial film where the camera is so often trained on things rather than on people.

The primary fact to consider in lighting players is that they be adequately lighted no matter where they move about the set during the course of action. This means that in the longer shots, general illumination must be considered first. The cameraman knows that he wants lighting in a certain key, and he also has determined the lens aperture at which he would like to shoot the scene. His next step is to add enough general illumination to meet these conditions.

After he has watched a walk-through of the action, he will be able to place his lights so that the players will be well-lighted no matter where the action takes them. Banks of photofloods, broads or large spotlights flooded out are best for general illumination purposes. Having placed these units, the spotlights which give quality and modeling to the players are added next. These include additional lights for key illumination, kickers, and top-lights or back-lights. In a long shot, exposure is determined more or less by the intensity of the general illumination, and these modeling units are balanced accordingly.

We have stated that the players should be adequately lighted no matter where they move on the set, but this statement should be qualified. In low-key sequences especially, the source lighting indicated is often small table lamps which throw light only from one direction. In such a case it is quite proper technique to let a player go into silhouette or at least move into a more subdued type of lighting when leaving the area covered by direct rays of the source light. This type of lighting is entirely realistic and very effective when properly executed in more dramatic sequences.

The most important part of any discussion of the lighting of players is, of course, that which pertains to the closeup. Here the cameraman must be especially precise, since the closeup lens accentuates any lighting flaws which may be present. The key-light in a closeup should correspond, at least generally, with the source established in the longer shots. Some cameramen, if they have a particular scheme of lighting in mind for the closeup, establish this in advance and then modify the general set lighting to correspond in the long shots.

It is impossible to describe any one setup as the right lighting for closeups, since every subject and every situation may require a different scheme, but there is a basic lighting which the cameraman can adapt to fit most requirements. It consists of placing the key-light to one side of the camera, at about a 45 degree angle to the subject facing front. It should be placed fairly well above the subject's eye level and pointed downward at him. The well known Junior spotlight makes an ideal key-light for a closeup when set in this manner.

Next, the fill-light is set. This is placed on the opposite side of the camera in such a position as to soften any shadows cast by the key-light. The intensity of the fill-light will depend upon the contrast ratio which the cameraman feels is best for the mood of the scene he is filming. For color, a ratio between key and fill of 1 to 2 is practically foolproof, and a ratio of 1 to 3 will give a nice modeling effect (especially on the new Commercial Kodachrome stock). However, unless you are after some special effect, it is best not to exceed 1 to 3 when shooting in color. In

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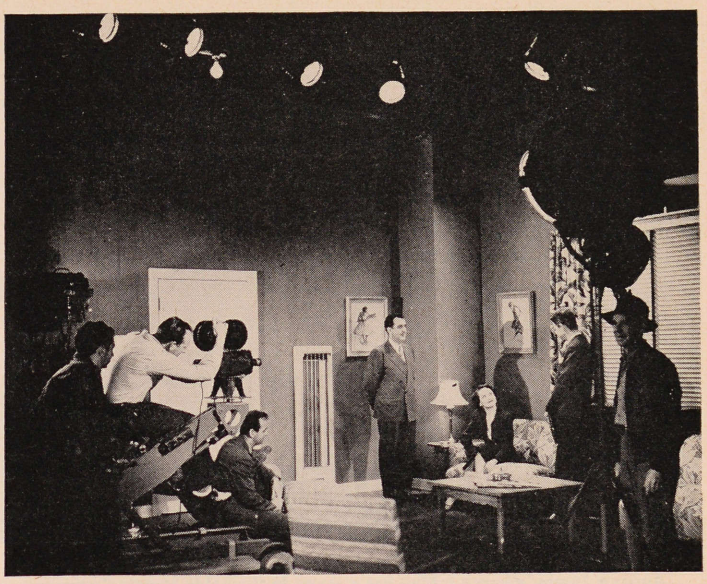
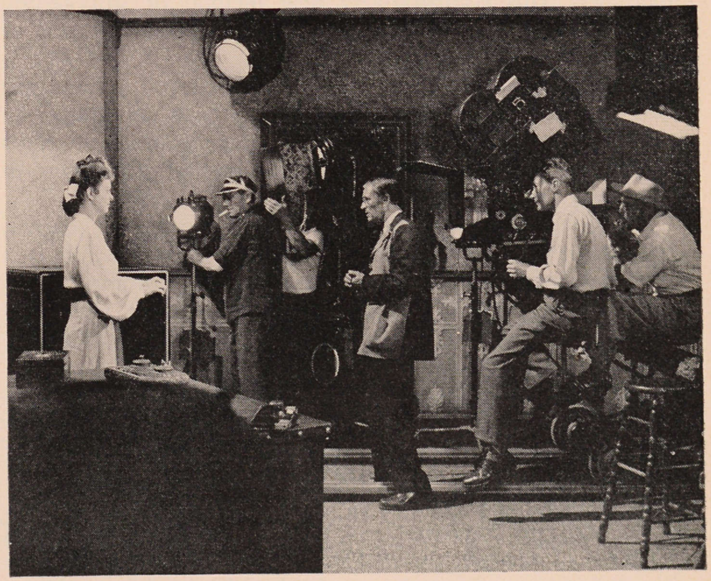


IN LIGHTING players on the set, first consideration must be given to adequately lighting the set for the action, as demonstrated in this scene for an industrial film produced on the stages of Rockett Productions, Hollywood.



AN EYE LIGHT, placed at one side of the camera and at the subject's eye-level, will add an extra measure of sparkle to the close shot.

PRODUCER-director-cinematographer Leonard J. Shafitz starts the Auricon 16mm. camera rolling for a scene in Reynolds Metals Company's "Pigs And Progress," company-produced promotional film on the production of aluminum.

SOUND DEPARTMENT of Reynolds' new 16mm. film production unit is up-to-date in every respect. Here sound technicians record the voice of a narrator for the introductory to a company-produced industrial film.

"Pigs And Progress"

Story of aluminum, from pigs to finished product, marks Reynolds Metals Company's initial venture into company-produced 16mm. business films.

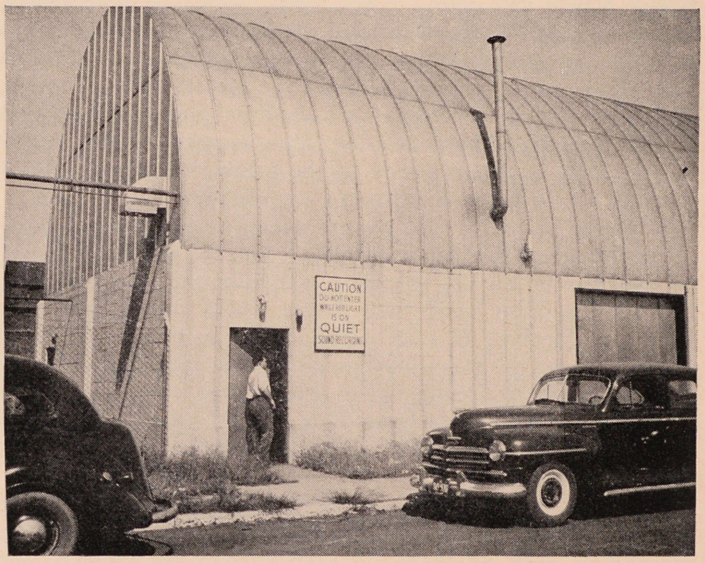
By LEONARD J. SHAFITZ

INDUSTRIAL 16mm. producers had been using the documentary technique a long time before Hollywood made the factual and actual location films now gaining such great importance. This comparatively new method of story-telling is typical of that used by the motion picture department of the Reynolds Metals Company.

Organized in 1946, the company's motion picture unit works with its public relations and advertising department to produce institutional, sales promotional, and educational films to show the general public the advantages of aluminum in modern day living.

The first major production was designed to reveal the great strides made by aluminum during and since the war. It is a 35-minute production, photographed in Kodachrome. It incorporates an original musical score recorded at the RCA studios in New York. Its title, "Pigs and Progress," stems from the pure aluminum pigs, the basic form of aluminum.

The writer was assisted in the production by Alfred K. Levy, former Signal Corps cameraman. We started on a 5000-mile trip through the east and mid-west using the barest of photographic equipment. A station-wagon with camera top served as transportation and a 7-ft. trailer carried a 15-KVA transformer, one 5000-watt spot, six 2000-watt spots, and an assortment of photofloods. A Cine Special 16mm. camera was utilized during most of the production, but a 16mm. Filmo also was used for hard-to-get shots that required hand-held camera operation.



SUCCESS of company's initial 16mm. promotional film led Reynolds Metals Co., to provide this spacious and fully equipped sound stage for its industrial film production unit headed by Leonard J. Shafitz.

The story of aluminum is fascinating. Its production starts in mines as red mud, goes through a long chemical process and a complex electrolytic operation to produce the virgin metal. The task at hand was to dramatize this story in color so that more people would come to know how this miracle metal is made.

At Bauxite, Arkansas, where Reynolds Metals Company has huge strip and underground mines, the first of many problems was encountered: to secure good Kodachrome exposures 300 ft. underground, working in 12 inches of mud, without any power lines. After a short course in underground safety, we were fitted out with boots, headlamps, and safety helmets. To get power to operate two 2000-watt spotlights, two electric mine loaders, each equipped with 60-volt batteries, were connected in series to give us the necessary 110-120 volts. Shots were carefully planned in advance so that battery drain would not affect the color temperature harshly, enabling us to shoot without recharging.

(Continued on Page 388)

Questions and Answers
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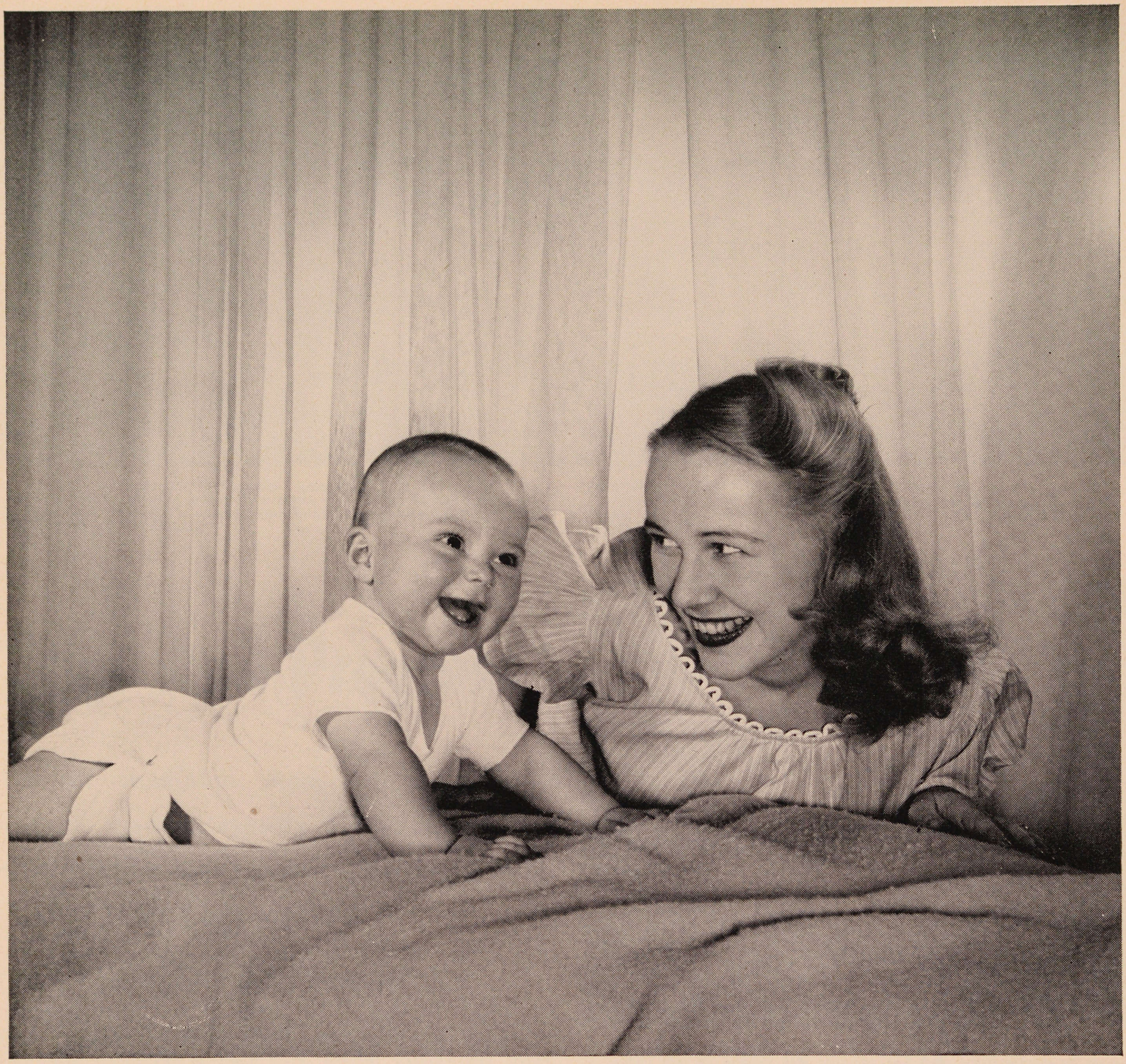

How to keep a baby's eyes open!

Babies can get a movie photographer pretty upset sometimes.

For as soon as you switch on your flood lights (to get some indoor shots of a baby) he starts to squint, squirm, even shuts his eyes because the glaring flood lights irritate him.

Professionals have found, though, that by using super-fast Ansco Triple S Pan film, you can use less artificial light or move the lights back farther.

That means less glare. Babies (and adults too) aren't as apt to fret and squint. They don't tense up the way they do under glaring lights.

And the extreme speed of Triple S Pan film also means that you can take outdoor pictures when the lighting is poor. Your screen images will be sharp and lifelike—professional looking. Ansco Triple S Pan film is available in both 8 and 16mm sizes—at any dealers. **Ansco, Binghamton, New York.** A Division of General Aniline & Film Corp.

TIPS ON TITLES—When taking pictures of a baby, it's effective to have the baby in the title run. Scrawl the title on a blackboard, and put the baby next to it with some chalk in his hand.

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TRIPLE S PAN FILM

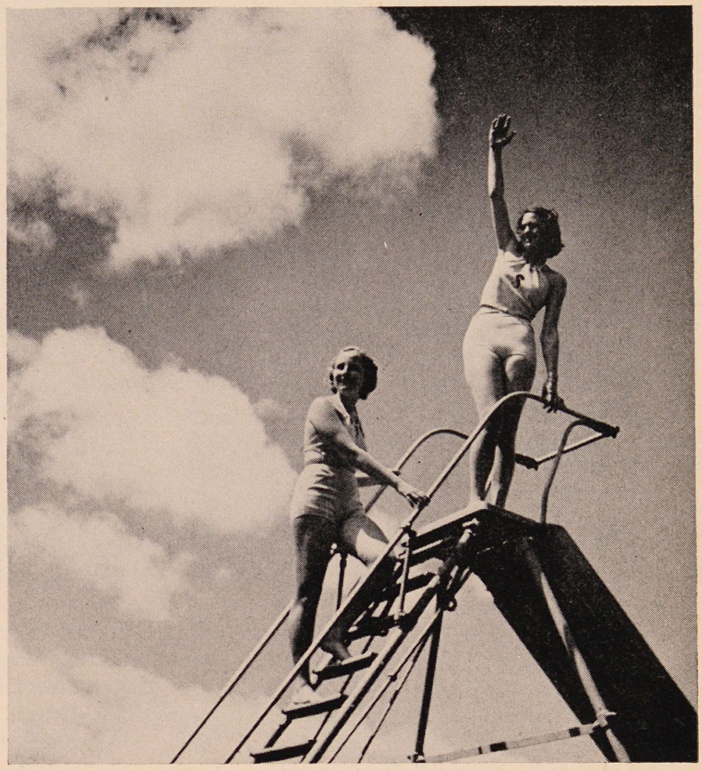
16mm. and 8mm. Cinematography SECTION

WHAT IS the secret of good 16mm. Kodachrome duplicates? To what extent can the photographer control the quality of his dupe prints? These are questions frequently asked by 16mm. movie makers after screening a print of their first duplicated color film. The secret of good quality duplicates involves several factors and the things the photographer can do to assure a relatively successful print are many.

If you are preparing a color film for reproduction for the first time, allowances should be made for some difference in quality that may result in the dupe prints. In the process of duplicating, colors are sometimes altered and contrasts built up, depending on how well the original was photographed. For this reason it is incumbent upon the photographer to produce an original of highest photographic quality.

Every day, color laboratories are receiving films for duplication, among which are some that would serve as excellent examples of what the cameraman should not do in photographing them. Among these are the work of ambitious movie amateurs producing an industrial or promotional film for perhaps the first time; of a lecturer hoping to use his picture to augment talks on his travels; and not infrequently of a professional cameraman or producer.

The importance of careful photography in the production of a color film that is to be duplicated has, more or less, been ignored by many cinematographers. There has been little enough said about this very important problem that should have come in for a lot more discussion long ago. While it is true that most professional 16mm. film producers or photographers have had good results, they have learned by their own experience and have acquired the know-how the hard way as to what kind of color photography will render duplicates of best quality.



TYPICAL of compositions on which many color photographers err in exposure is this scene of two girls against a brilliant sky. Allowance must be made for the predominant sky area in taking a meter reading, otherwise under-exposure will result with consequent loss of detail in subjects' faces.

Color Dupes Require Careful Filming

Some tips for 16mm. movie makers planning Kodachrome films for duplication.

By LARRY E. LAYOS
Color Reproduction Company

One of the most important factors that must be considered by the photographer in shooting Kodachrome is the avoidance of extreme contrast. In the process of making the duplicate the contrast has a tendency to build up. Therefore, what one sees in the original film will not always reproduce the same way in a Kodachrome print.

For example, if a person with an extremely white or chalky complexion is photographed in color standing before a very dark background, even though good detail can be discerned in the original, the same scene, when printed to favor the sujbect's face, will go completely dark in the shadows—often to the point where no detail whatever can be seen. Near the top of the list of "don'ts," therefore would go the admonition against shooting scenes of this type where they can be avoided.

To counteract extreme contrast in examples of this kind, the use of reflectors will lighten up the background and tend to bring the lighting range more into balance. No reflected light should be used on the subject in such an instance, of course. To further lessen the contrast between subject's features and the background, makeup may be applied to subject's hands and face, thus reducing the variance between the extremes of light and dark in the scene. This procedure should also be kept in mind when photographing persons wearing clothes of other than pastel shades. If a subject wears a deep green or brown suit, more printing light will be required to penetrate the film in order to bring out detail, with the result that detail will be washed out in subject's face. In such an instance, heavy makeup or having subject don lighter clothes would be called for to properly balance contrasts and thus insure a normal print quality for the scene.

Extreme contrast is a common error in indoor as well as outdoor photography and the photographer should be just as cautious when shooting Kodachrome indoors with artificial light, especially in lighting his backgrounds. Too often a cameraman, especially if he is making his first extensive production

(Continued on Page 387)

Lighting Home Movie Interiors

You can approach the three-dimensional lighting of the professional if you know your photofloods and where to place them.

By ALFRED L. GILKS, A.S.C.

PUT A PROFESSIONAL cinematographer behind an 8mm. or 16mm. cine camera and give him only the photofloods the amateur uses for lighting—but enough of them—and he will invariably put on film a photographic result comparable to that he achieves at the studios. Using the same equipment as the amateur, he has added only his lighting know-how to the procedure. Let the movie amateur acquire a measure of this same professional know-how and he, too, can photograph interiors that are photographically good.

It often happens that when the professional talks to the amateur about lighting, the amateur is confused by the seemingly intricate and endless lighting units that he is told are employed to achieve professional lighting in the studios. The movie amateur, usually with only photoflood lamps at his disposal, does not know that he can produce artistic and effect lighting in his movies with these very same lighting units. What he must know, of course, is how to place his lights to attain the effects he desires.

The beginning amateur invariably shoots his indoor movies using one or two photoflood lamps set next to the camera, flooding the scene with light. What results is flat lighting, and this is often quite satisfactory for his initial try at indoor movies of family activities—birthday celebrations, Christmas holiday festivities, etc. But sooner or later the serious student of cinematography endeavors to improve his lighting, and this he can do simply by adding more lighting units and carefully placing them about the set. When he arrives at this point, he will want to know about all the various photoflood lamps that are available and what, specifically, each type will do for his lighting problem.

He will undoubtedly be familiar with the No. 1 and No. 2 photofloods. These are inexpensive high intensity lamps of limited life which should be used in an approved reflector of maximum effectiveness. When not used in a reflector, these lamps are only about 50% effective—that is, about half of the light volume is lost.

Photoflood No. 1 is about the same size as a standard 60-watt lamp and draws 250 watts at 115 volts. Photographically, it is equal to as much as 750 watts in standard lighting lamps. As many as six may be safely used on one household lighting circuit and the rated life of the No. 1 lamp is about three hours. It is rated at 8,650 lumens at 115-volts and has a color temperature of 3400° K.

Photoflood No. 2 is the same size as a standard 150-watt lighting lamp, draws 500 watts at 115 volts, yet it's photographically equal to as much as 1500 watts in standard lighting equipment. Three of these lamps may be safely used on any one house-lighting circuit properly fused. The No. 2 has a life expectancy of about 6 hours at 115 volts, is rated at 17,000 lumens, and has a color temperature of 3400° K.

The No. 4 photoflood is about the same size and shape as a regular 300-watt general service lamp. It has a mogul screw base instead of the standard base that features the No. 1 and 2 photofloods and requires a special adapter or fixtures having a mogul receptacle. It is said to be 2½ times as effective photographically as a regular 1000 watt lamp and is rated a life of 10 hours when used at 115 volts. This lamp is rated also at 33,500 lumens and, like the No. 1 and 2 photofloods, has a color temperature of 3400° K.

Not so very long ago, General Electric Company introduced two new photographic lamps which have greatly widened the scope of indoor lighting for the amateur photographer. These are the No. RFL-2 reflector photoflood and the RSP2 reflector photospot.

The reflector photoflood has a built-in reflector and therefore is an excellent lamp for the amateur who hasn't an excess of reflector units. It gives a smooth 60-degree controlled beam of light that is photographically equal to 1500 watts

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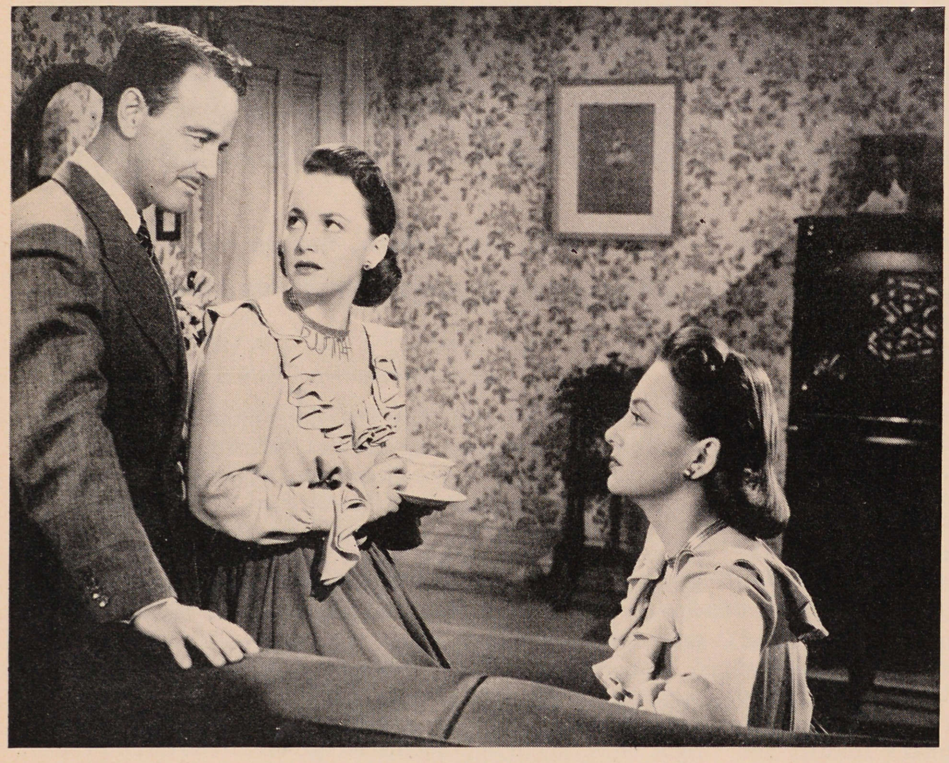
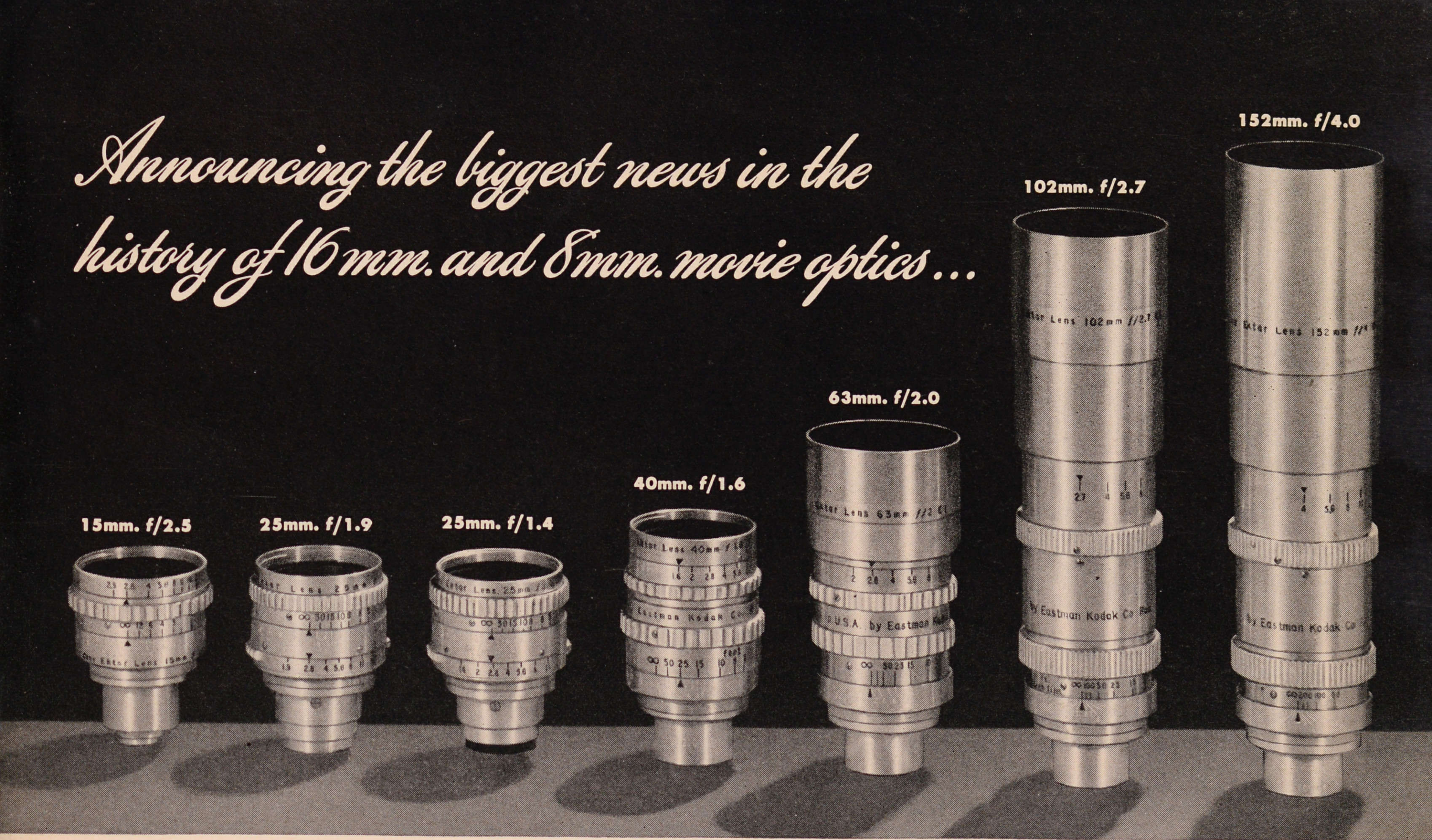


THE LIGHTING in this scene from "The Dark Mirror" is an excellent example of source lighting for the amateur to study. Note how the important illumination comes from overhead, as from some natural light source such as a chandelier.

Announcing the biggest news in the history of 16mm. and 8mm. movie optics...



A complete, new series of Kodak Cine Ektar Lenses

Important news, indeed, for advanced movie workers—a series of standard, wide-angle, and long-focus lenses that are the finest ever made for 16mm. and 8mm. motion picture cameras.

Remarkably fast, superb in performance, and unmatched in ease and precision of use, these new lenses qualify in every way for the name, *Ektar*—Kodak's highest quality designation. The lenses meet the highest standards of definition and edge-to-edge sharpness . . . provide unmatched flatness of field. Even at their widest apertures, performance is outstanding. Aided by the unique optical qualities of Kodak rare-element glass, they produce superb results throughout the full range of filming conditions.

Every internal detail of design contributes to the reduction of flare . . . to the transmission of a maximum of image-forming light: All glass-air surfaces of all elements are *Lumenized;* lens rims are blackened; mounts are corrugated; flanges are beveled. The results—excellent contrast, pure colors, increased speed . . . better movies!

And for convenience and precision...

Aperture scales are widely and evenly spaced . . . integral depth-of-field scales show the exact range of good focus at all apertures . . . distance scales, more comprehensively graduated than ever before, make possible remarkably accurate focusing. And all lenses take Series VI Kodak Combination Lens Attachments, so that a single set of accessories equips the full complement of lenses.

Most 16mm. cameras accept all seven Kodak Cine Ektar Lenses . . . *many* "Eights" take four. See your Kodak dealer about equipping your camera with these finest of movie lenses.

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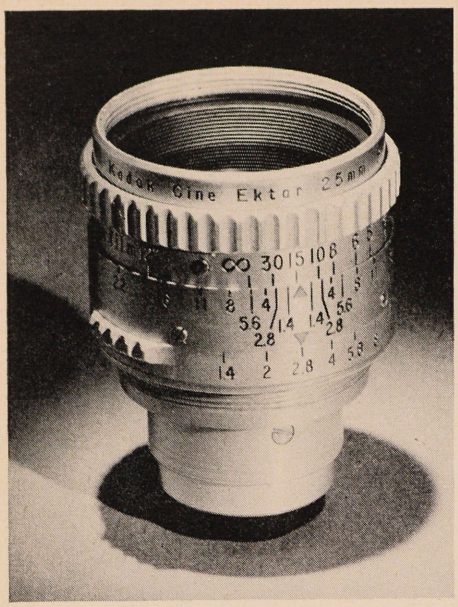

FIRST of Eastman Kodak Company's new series of Ektar lenses for 16mm. cameras was this 25mm. f/1.4 which set the style, both in quality and beauty of design, for the remaining six that followed. Ektar lenses fit any make 16mm. camera and some 8mm. cameras.

Seven New Lenses For 16mm. Cameras . . .

New Ektar series, with a common ratio of 1.6 between focal lengths, enables the 16mm. photographer to operate with far greater precision in increasing or decreasing scale of his picture during filming.

By ARTHUR ROWAN

ANY ART, as it progresses toward perfection, requires that the tools employed keep abreast of the needs of the artisan. This has been especially true of 16mm. photography and it is significant that the need for improved cine camera lenses has been recognized and met by a leading maker of cine equipment.

For a considerable period of time, Eastman Kodak Company has worked to improve the lenses for its Cine Kodaks and recently brought forth a superior lens known as the Ektar. The initial Ektar for cine cameras was the 25mm. with a maximum aperture of f/1.4. Incorporating Kodak's new rare element optical glass and Lumenized with Kodak's ultra-hard lens coating, this new lens had at last brought top professional lens quality within the reach of the 16mm. cameraman.

Previously, according to Kodak's technician's, it had been almost impossible to design a lens with an aperture as high as f/1.4 that would give acceptable definition over a 28 degree field, but by using Kodak's new rare element glass, producing such a lens at last became feasible.

Of still greater importance is the announcement this month by Eastman Kodak Company of a complete new line of Ektar lenses ranging in focal lengths from 15mm. to 152mm., with maximum speeds from f/1.4 to f/4.0. The complete series includes 15mm. f/2.5, 25mm. f/1.9, 25mm. f/1.4, 40mm. f/1.6, 63mm. f/2.0, 120mm. f/2.7, and 152mm. f/4.0. The series has been designed in geometrical progression, each focal length bearing a constant ratio to the next below it or above it in the series. Like the initial 25mm. Ektar, the additional six incorporate the newest types of optical glass and the latest developments in lens design and manufacturing methods. Availability of these lenses now makes feasible for perhaps the first time, the possibility of the discriminating 16mm. cameraman acquiring a complete set of matched lenses for his camera, capable of producing surprisingly uniform results.

Although all of the lenses are fast—one opens to f/1.4, another to f/1.6—all of them, even at their widest apertures, meet extremely high standards of definition and edge-to-edge sharpness. They also provide unmatched flatness of field. As a result of the unique optical qualities of the rare-element glass which is used in their manufacture, and which today is internationally recognized as the most recent improvement in optical glass, these new lenses produce excellent results throughout all movie-making conditions. As a series, they place within the range of the 16mm. movie-maker every lens needed for all movie-making situations.

The new lenses are, of course, interchangeable. Precision built and inspected to tolerances approaching 1/10,000 of an inch, each lens is equipped with Kodak's comprehensive system of light control. All glass-air surfaces are Lumenized, lens rims and barrel corrugations are blackened, baffles are provided where needed, and the flanges holding the lens elements are beveled. The result is that lens flare is

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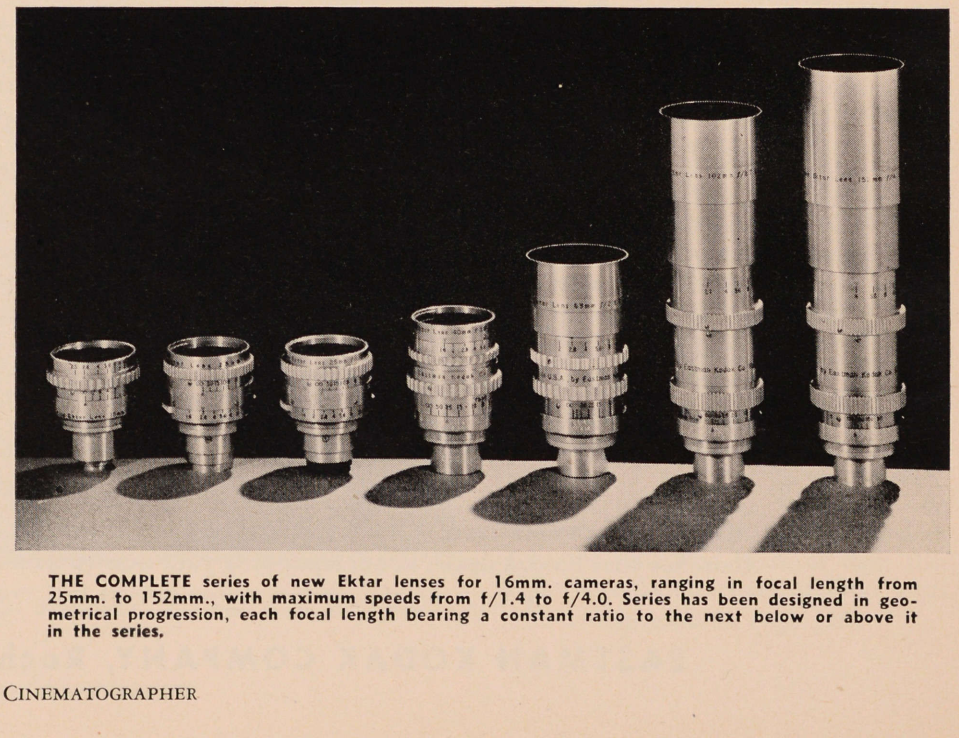
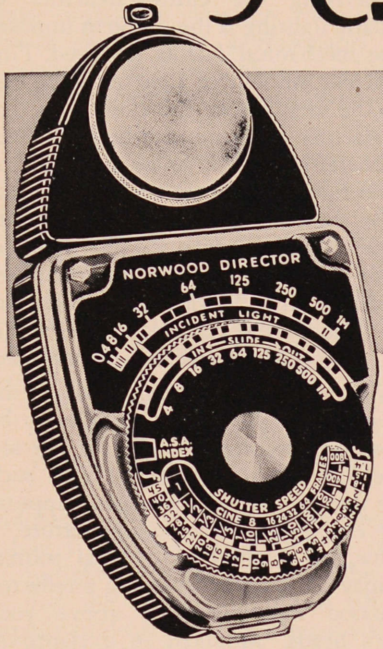


THE COMPLETE series of new Ektar lenses for 16mm. cameras, ranging in focal length from 25mm. to 152mm., with maximum speeds from f/1.4 to f/4.0. Series has been designed in geometrical progression, each focal length bearing a constant ratio to the next below or above it in the series.

5 Excellent Reasons Why



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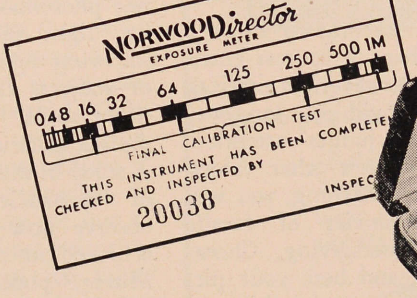
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•

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•

TO PHOTOGRAPH an object in such a position that it's impossible to bring the camera close enough or to focus it at the desired angle, use a mirror to reflect the object toward your camera. In setting your focus, remember to consider the distance from subject to mirror to camera lens.

•

AN EFFECTIVE FADING device may be made as follows: Secure a piece of 2¼x3¼ cut film from a local photographer and have him develop it without exposing it. Film will be transparent after developing. Then immerse gradually in a container of Craig Fotofade, same as used for making chemical fades on film, until half the panel of film is dyed gradually from clear to full opaque. Cut into strip about 1½" in width. To make a fade at end of scene, draw fader across lens slowly, leading with the clear section and stopping when opaque area covers lens. Reverse procedure for a fadein.

•

STORE YOUR COLLAPSIBLE tripod screen in a closet, standing it on end and holding it in place by a loop of leather strap nailed to wall at point near top of screen.

•

SHORT STRIPS OF FILM, accumulating during editing, may be easily coiled by using a flange made to fit your rewind spindle. Make one from a discarded 100 foot 16mm. reel by removing one flange down to the hub. To do this, remove entire flange, trim with tin snips, replace the remaining disc and secure by bending over "ears" on hub.

•

TO TEST CAMERA suspected of scratching film, make a loop of unexposed film, thread it in camera, and run camera for a minute or so. Examine film surfaces to determine presence of scratches. Where scratches result, it will be easy to trace source through position of scratch on film with relation to film gate and sprockets or rollers.

LIGHTING HOME MOVIE INTERIORS

(Continued from Page 382)

in standard lighting lamps in good reflectors. It draws 500 watts at 115 volts and as many as three may be safely used on the regular house lighting circuit. Its rated color temperature is 3400° K.

The reflector photospot, identical in size, shape, wattage, life and color temperature with the RFL2, is an ideal lamp for highlighting, backlighting, edgelighting, etc. Its light has been squeezed into a beam of approximately 20°, resulting in a punch of light more than seven times more powerful than that of the reflector photoflood.

These photoflood lamps are not only for amateur photographic use, but are frequently used for special lighting effects in the Hollywood studios. Robert Surtees, A.S.C., used them extensively to achieve natural lighting in both interiors and exteriors in photographing "Act of Violence."

Next to an adequate supply of photoflood lamps, good and proper reflectors are items of lighting equipment that should next come in for attention. These should be of metal—aluminum or aluminum surfaced—and with the reflective surface in good condition. The best type of single reflector is the clamp-on unit that may be affixed to chairs, lighting fixtures, tripods, etc., which will take the place of units mounted on collapsible metal standards. Other lighting units may be purchased complete with telescoping standards and these make the most efficient lighting equipment.

You may ask, "Why undertake this special lighting when ordinary No. 1 and No. 2 photofloods give me acceptable pictures?" But do they? Compare your last indoor color shots with a Technicolor scene and note how the professional production has depth and three-dimension. Of course, you cannot hope to duplicate results of the professional Technicolor production, using Kodachrome or Ansco Color film; but you can approach the results the professional achieves if only by adding that missing factor—three dimensional lighting.

Suppose you are starting to shoot a serious picture, perhaps a contest entry, in which there are several interiors. Effective photography will go a long way toward attracting the judges' attention, regardless of the picture's other values. With the holidays approaching, you will undoubtedly shoot movies of family activities during Thanksgiving, Christmas or New Year's, and here your pictures will demonstrate your real ability as a cinematographer if the scenes are carefully and thoughtfully lighted.

You cannot effectively light your Christmas movies, of course, if shooting is done extemporaneously; but if you plan a picture based on a carefully prepared shooting script, then the lighting should be as carefully planned also.

Underlying the entire structure of cinematic lighting is the problem imposed by the mechanical factors involved. First a sufficient amount of light must be cast upon the area before the camera so that a satisfactory exposure may be had. Thus the general practice is to lay a foundation of even light all over the set so that there will be the desired degree of luminosity in the deepest shadows. This general lighting is best secured by means of two photofloods in reflectors, placing one on either side of the camera. If the set is small, only one photoflood need be used.

With the general lighting arranged the next step is to determine what is to be the principal source of light for the set. The object is to light your set in such a way that the main illumination appears to be coming from a ceiling fixture, a window, or some other natural source. This may be achieved by using a reflector photoflood mounted high above your player's heads. Mounted in a clamp-on reflector this lamp may be attached to the moulding that runs around the room near the ceiling, or to the edge of a nearby picture frame. If possible, of course, this lamp should be mounted on an adjustable light standard so that it can more easily be placed on the set where needed.

Another photoflood may be placed at a similar elevation to throw illumination on the background, from an angle, which up until now is but flatly lit by the lights set up near the camera. If there is a door at one side of the room, place another photoflood—a No. 1 should do—just inside, so it will throw light into the room in a manner that will make it appear as illumination coming from an unseen chandelier or ceiling fixture.

This is all the light that would be required to photograph this imaginary set in order to enable you to achieve a rounded, three-dimensional effect as opposed to the flat lighting rendered where only one or two floodlamps are used alongside the camera.

In shooting medium closeups, use only one photoflood near the camera for your key light plus an elevated photospot throwing light down upon your subject or subjects from overhead, and from a slight angle. This arrangement will lend the authenticity of natural room lighting. A study of the photo on the opening page of this article will enable the reader to observe how true source lighting was achieved in the scene from "The Dark Mirror," photographed by Milt Krasner, A.S.C. Note how all the light appears to come from a fixture overhead, such as a chandelier. Note also how light cast from an angle on the back wall lends further authenticity to the effect.

To summarize briefly the important

thing we want to emphasize is that by merely adding background lighting and/or overhead lighting to the illumination from the usual beside-the-camera photoflood units, the amateur cine photographer can achieve a reasonably good measure of the three dimensional lighting effect that marks all professional cinematography.

You can, of course, proceed beyond this stage to special effect lighting, low key lighting, and other more intricate lighting effects. But this is something that must be approached with caution, and will come easier when you have mastered the simple rudiments of three-dimensional lighting of interiors.

COLOR DUPES

(Continued from Page 381)

indoors, will play all the light upon his subjects from the front without considering lighting his background. The result is that the background drops off very rapidly in density in the original which in turn results in a very unsatisfactory print.

Careful exposure, of course, must receive equal attention with lighting. When using either Regular or Type A Kodachrome, best dupe prints result where exposure in the original was accurate. A deviation of a half a stop either way, however, will not materially affect print quality. It is possible for most color film laboratories today to satisfactorily correct a color film during printing for a moderate degree of over- or under-exposure. However, it must be kept in mind that errors in exposure should be avoided and that the utmost color fidelity in duplicates depends upon accuracy of exposure in the first place. Over- or under-exposure affects the color in the image—the first washing it out and the second distorting it; and when true color is not in the original, it cannot be put in nor built-up in the duplicating process.

Many 16mm. film producers are turning to the new Commercial Kodachrome film, which differs a great deal and in many respects from either Regular or Type A. Most of us have become so accustomed to the latter types that, when viewing Commerical Kodachrome duplicates for the first time, there is considerable reaction. When Commercial Kodachrome was first introduced, many 16mm. film producers took an intense dislike to it, probably because they expected so much from it. A great many set out to use the film for the first time, believing it would eliminate many of the faults which actually were inherent in their own photographic procedures. They boldly exposed the film, often under highly abnormal conditions, under the impression that it possessed a certain magic which would compensate for exposure to glary

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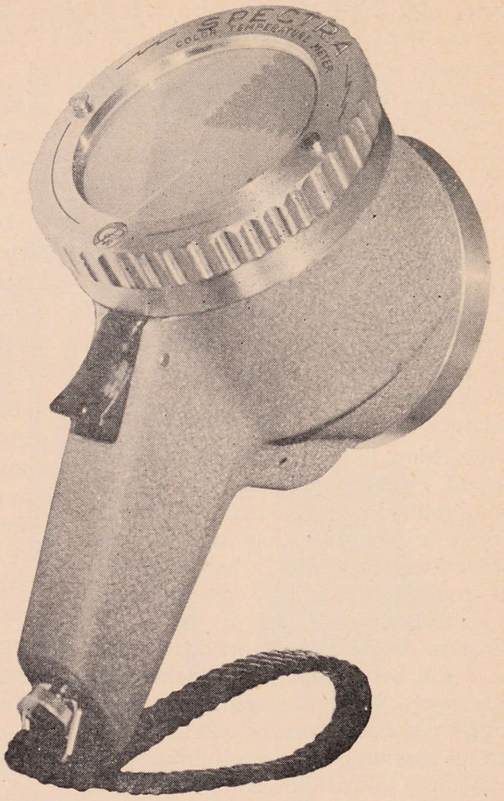

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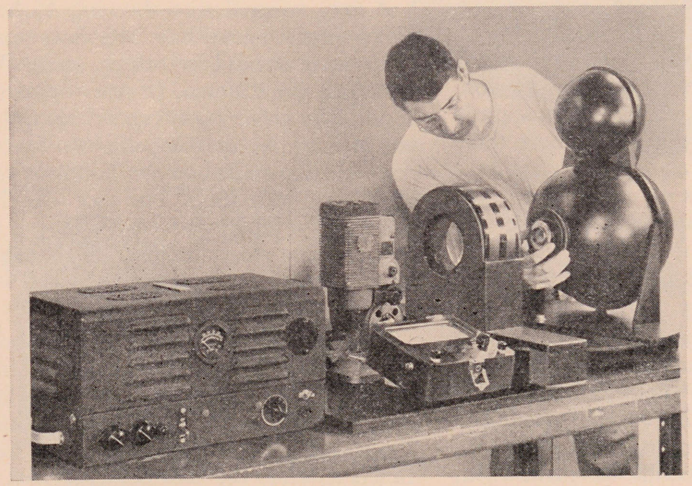

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objects and automatically take care of all over-exposures.

Properly exposed, Commercial Kodachrome will reach into the shadows and provide more detail in the duplicate prints. However, colors will not be quite as vivid and not as contrasting as rendered by the older types of Kodachrome; but they will actually be truer. It is admitted that some colors do not reproduce as strongly with Commercial Kodachrome, but this is easily compensated for by the excellent flesh tones and the good color that reproduces normally in the hair and features of subjects. Pastel shades reproduce with remarkable fidelity.

One thing in particular that must be watched when shooting Commercial Kodachrome is under-exposure which tends to accent grain. Exposures ranging from normal to within a half stop over will result in the best reproductions. Scenes over-exposed one or more stops will show a decided distortion of color and it will be difficult to print the highlights down. Whereas Commercial Kodachrome possesses more of a tendency to even up contrasts, the same lighting principles apply to this film as for Regular or Type A Kodachrome.

As a general rule, it is advisable to avoid use of additional filters except those called for in the instructions for using this stock, as the variation of the light outdoors, in the film stock, and in the processing run will often be sufficient to unbalance the results expected.

The avoidance of extreme contrasts and proper, "on the nose" exposure are the two most important factors to be considered by the photographer making a color film for reproduction. Where there is any question about these factors in a scene, it is advisable to make more than one shot, varying the exposure and the lighting. This is the cheapest insurance the photographer can provide to cover him against failures and retakes.

There are other precautions, too, which will contribute toward the production of duplicates of good quality. Rock-steady camera work eliminates the possibility of blurred images and therefore every take in a production should be made with the camera tripod mounted. Where pan shots are necessary, they should be made moderately slow. Extreme care should be exercised in handling the original. It should never be handled with bare hands and never allowed to touch the floor. Dust and possibly grit thus picked up can ruin an entire reel of film. And if the same grit is deposited in the projector gate as the film is screened, it will damage other films that follow it.

So, from the very beginning to the time your film is brought to the color laboratory for duplication, extreme care must be the watchword—care in lighting, exposure and in handling the film. ★ ★ ★

PIGS AND PROGRESS

(Continued from Page 378)

Our spots were dropped through the man-shaft, and cable was guarded against dampness and abrasion. Exposures within the medium-shot range were from f/2.3 to f/3.5. Other underground shots were taken under loading ramps with more or less the same problems. By keeping within the range of available lighting and power, satisfactory exposures were maintained during the entire production.

In order to explain with detail the happenings inside huge tanks and vats when filming the chemical processes, the camera was placed so that detail was of paramount importance. On one occasion, it was necessary to empty one 5-story tank so that the crystallized solution could be seen at the bottom of the tank. Here our camera was supported with wire to prevent any accidental fall from such height into a caustic solution.

At Jones Mills, Arkansas, site of the huge electrolitic reduction facilities, enough power was available to satisfy the most critical cinematographer. Since alumina requires huge quantities of electricity to break it down into aluminum, more than 75 diesel-electric generator sets are used to produce 60,000 amperes of electricity. This power was available and our lights burned 3200K consistently.

A very unusual shot showing 15 huge diesel-electric generator sets was made from an overhead traveling crane. We mounted the camera in the operator's booth. The crane hook carried along two sets of batteries, each capable of 75 volts. A plank was nailed to the booth to take three 2000-watt spots. The shot was then made as the crane moved back over the line of generators, pulling the batteries, lights, camera and personnel along with it.

This set-up required two days of preparation, while the actual shooting time amounted to only 5 minutes. The final production shot was 25 seconds duration. The tremendous noise from the huge diesels required the use of hand signals for cues, while other instructions for key personnel were first given outside the building.

In shooting industrial color, the drama of machinery is the keynote. So we did not "dress" the scenes. When we found the huge rolling mills at Reynolds' McCook (Ill.) plant were a steel grey, we photographed them that way. And when the scenes in other plants lacked the brilliance of the artist's palette, we let the impression record itself, because the picture we wanted was not of handsome blues and reds of the spectrum, but the grimy, powerful, surging wheels of our industrial progress.

One of the major problems that often confronts the photographer of industrial films is the mixture of light present in plants. Usually, there is daylight present, but not enough to permit a proper exposure. In order not to cut the intensity of incandescent lighting with filters, we used our 3200K units. The resulting blueness, when properly controlled, did not adversely affect the shot to any great degree.

When producing technical films, we found it to be of utmost importance that complete accuracy be maintained in regard to every minute detail of picture and narrative. It is the function of the Editorial Department, headed by Mr. G. W. Birdsall, to supervise these scripts which reach a vast audience of engineers, designers, scientists and technical men. For complete acceptance, a film must be authentic, and its story technically perfect.

Animation in "Pigs and Progress" was used to great advantage. It helped explain the breaking down of alumina into aluminum and oxygen in the electrolytic cells.

Animation again proved valuable in dramatizing the decreases in price of aluminum since Reynolds entered the field. In addition, animation was employed to depict the vast amount of bauxite in the earth's crust.

During the two months required to photograph the film, all film exposed in the hot climates of Arkansas and Kentucky were shipped to the lab daily by air express. After photography was completed, the commentary was written based on the original outline of the production. After completion of editorial work, a duplicate was supplied to Mr. Emil Velazco, well-known New York composer, who wrote and recorded an original musical score for the picture. The local RCA facilities were used to re-record the narrative by Andre Baruch, and the music and special effects tracks.

Produced in its entirety by two veterans of the Air Force Signal Corps photographic departments, "Pigs and Progress" was premiered at the RCA Exhibit Hall in Radio City for Reynolds personnel in the New York area. It has been used widely by Reynolds' sales office and shown before many technical groups as well. Prints are in circulation in India, Norway, Sweden, England, and France, and there are now prints in permanent libraries of universities and many industrial concerns. The film marks the first time the complete story of the production of aluminum has been told in color.

The success of the picture has enabled Reynolds' motion picture unit to secure photographic and sound recording equipment comparable to the finest now in use by leading independent 16mm. film producers. In addition to an all-aluminum studio building recently completed, the department is now equipped with the latest in film editing equipment comprising a sound recording booth, double-system sound camera, preview theatre, a wide variety of sets, a specially constructed camera dolly, and ample AC or DC power for lighting, up to 100,000 watts.

Since completion of "Pigs and Progress," eight additional films have been produced, most of them filmed in 16 mm. Kodachrome.

What allows the fresh approach to this type of industrial film is the added mobility and fluidity obtainable with the 16mm. camera. Now that high quality results are possible with 16mm. professional cameras, pictures can be taken inside the Reynolds plants on location without disrupting production.

We have found that by intelligently seeking out the new and unusual, and depicting it with the 16-mm. camera, 16mm. films can make a contribution to a more effective way of dramatizing industry. For it is through education alone, that people may more readily come to know the marvels of science, the power of thought, and of industry's devotion to bettering the American way of life. It is with this thought that we, as industrial film makers, are telling our stories on film.

CINECOLOR

(Continued from Page 373)

years, it has only been comparatively recent, since 1944, that the process has gained popular acceptance among Hollywood motion picture producers. This acceptance has gone hand in hand with the public's steadily increasing demand for more motion pictures in color, plus the fact that Cinecolor proved conclusively four years ago that they were able to photograph feature-length films and mass produce prints on a picture at a price within the budget of the average producer.

At a recent get-together in Hollywood between Cinecolor technicians and executives and members of the American Society of Cinematographers, the full results of Cinecolor's recent developments were unfolded. The improvements in the process preceding the introduction of post-exposure were graphically demonstrated in the projection of parts of several recently completed Cinecolor productions. These included exterior and process scenes from "Northwest Stampede," filmed by John Boyle, A.S.C.; night and day exteriors in "Coroner's Creek," filmed by Fred Jackman, Jr., A.S.C.; interiors from "Gal-

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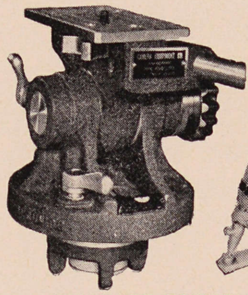
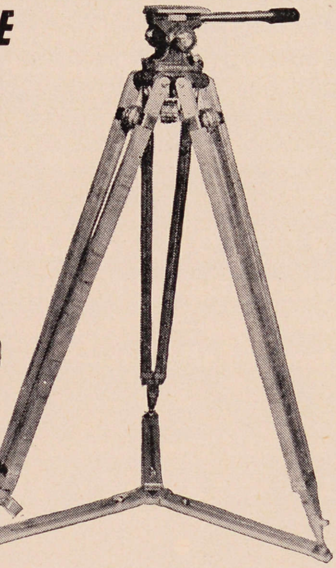
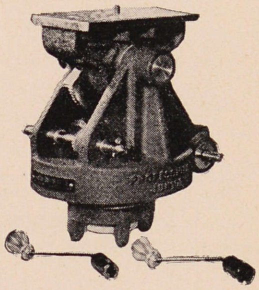
The head, made of Dow Metal magnesium, weighs but 5½ lbs. and is interchangeable with the Friction type head. It handles all types of cameras. Snap-on metal cranks control pan and tilt action from both sides. Worm-driven gears are Gov't spec. bronze.







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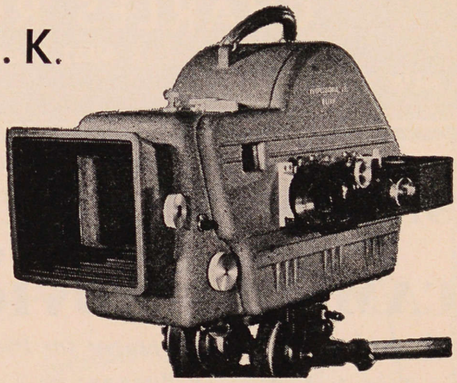
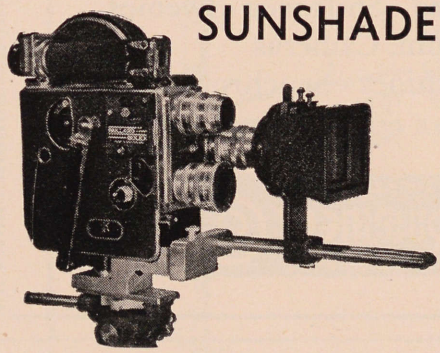


This Blimp constructed of Dow Metal magnesium, is thoroughly insulated to afford absolute silent operation. Exclusive features: Follow focus mechanism permits change of lens focus while camera is operating in blimp. Blimp takes synchronous motor drive which couples to camera. A dovetail bracket is provided to mount an erect image viewfinder.



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lant Blade," filmed by Burnett Guffey, A.S.C., and Charles Lawton, A.S.C.; and scenes from "El Rancho Grande," a Mexican production filmed in that country by Jack Draper.

John Boyle and Fred Jackman, Jr., can probably be credited with being the "old masters" among Cinecolor cameramen, both having more Cinecolor productions to their credit than any of the other directors of photography. It was Boyle who, despite the scoffers, pioneered the use of hard lighting in Cinecolor photography and proved that its use definitely enhanced color quality. It was Boyle who guided many another cinematographer on his initial Cinecolor assignment and who is responsible for the adoption by Cinecolor of the 1,000 foot bipack film magazine. His most recent Cinecolor assignment was "Northwest Stampede," in which there is more background projection shots than in any other Cinecolor production to date.

Fred Jackman, Jr., who, because of his earlier association with his father in the development of another color film process, is particularly well grounded in the practical side of color photography, which has enhanced his skill as a Cinecolor cinematographer. To Jackman goes the distinction of being the first director of photography to shoot a production with the improved Cinecolor film—the Nat Holt outdoor epic, "Canadian Pacific." For photographing interior scenes for this picture, Jackman used light ranging from 250 to 300 foot candles. For the simulated night shots, of which there were a great many, he used correction filters, and Macbeths on the lamps.

Where the great economy has been effected in Cinecolor production is the saving in light bills, which have been shaved in many instances as much as 40%. Jackman, for example, shot a great many of the interiors for "Canadian Pacific" using only incandescent lamps, reducing costs and at the same time making his work considerably easier. The post-exposure treatment is applied only to Cinecolor film photographed indoors under artificial light. This enables the cameraman to gain about 1⅓ stops in the speed of the film.

A development which has done much to improve the quality of Cinecolor photography is the new type solid pressure plate which has been installed in Cinecolor cameras. This plate, which replaces the roller type, has resulted in greater sharpness of image and better register for the bi-pack film as the plate holds the two films in better contact. This development was worked out by the Cinecolor color consultants and the company's camera department. Still another innovation which has resulted in higher quality results is the improvement in coordination pull down pins and register pins.

In the laboratory itself, printing machines have been improved constantly from the standpoint of contact and registration. This, plus the use of new dyes that give better spectral characteristics, have resulted in better screen reproduction. There is a marked improvement today in the Cinecolor process noticeable in better resolution and grain characteristics of the color images.

Much of the research done by Cinecolor has also resulted in many new cost-saving measures for producers of Cinecolor pictures. These measures have been particularly advantageous to producers during these days of limited production budgets. Among these devices is the new 1,000 foot film magazine for Cinecolor cameras which permits longer takes and a two-fold saving by reducing the frequency of camera loading and eliminating almost 80% of short ends wastage.

In the post-exposure or latensification process, both negatives of the Cinecolor bi-pack system are subjected to the treatment. One being panchromatic and the other ortho, each film receives separate treatment. Note that the post-exposure application takes place after the films have been exposed, as the term implies. We mention this because some have confused the process with that of hypersensitizing, a treatment frequently applied to amateur motion picture films before exposure in the camera. However, where cine films hypersensitized with mercury vapors must be exposed and processed within a relatively short time after treatment, because the effects of hypersensitizing begin to diminish immediately after application, there is no such loss in image quality in films receiving the post-exposure treatment. A photographer could shoot Cinecolor film in China, for example, and not be able to get the film to the laboratory for processing for several weeks, and the films would suffer little or no loss in quality providing they were given the proper care during storage and transportation, of course.

Alan M. Gundelfinger, Vice-President and Technical Director of Cinecolor Corporation, Burbank, credits much of the success of the improvement in Cinecolor films to the cooperation of the directors of photography, art directors and lighting experts of Hollywood's studios. Men in these groups, who have had the opportunity of working on Cinecolor films, he says, have consistently aided in the development of new techniques which have shown to great advantage on the screen.

•

TOM TUTWILER, A.S.C., is grounded in the wilds of the Aleutian Islands shooting a new Technicolor production for Apex Pictures, "Survival of the Aleutians," after having spent more than 500 hours in the air shooting "Arctic Geography" for the same company. He hopes to be back in Hollywood for the Christmas holidays.

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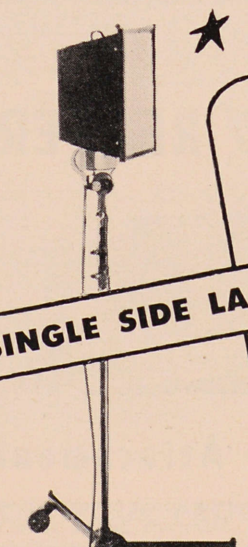

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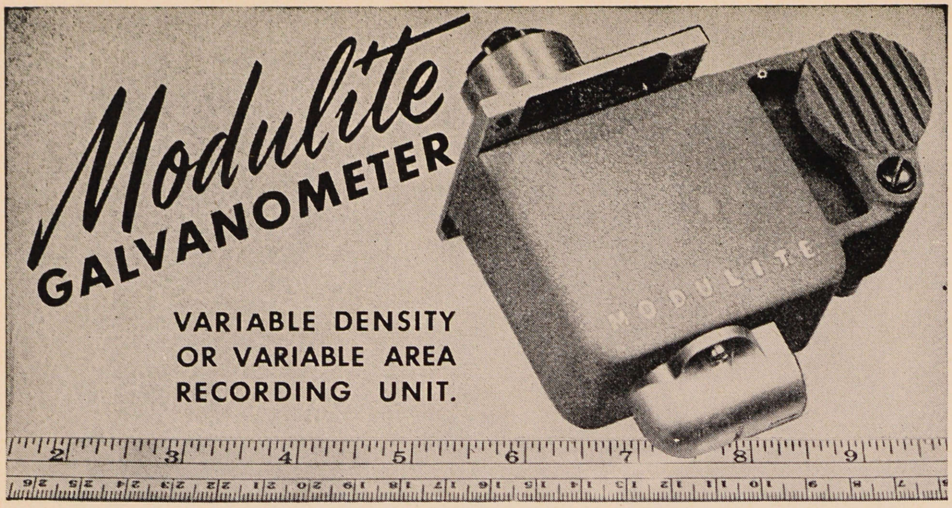

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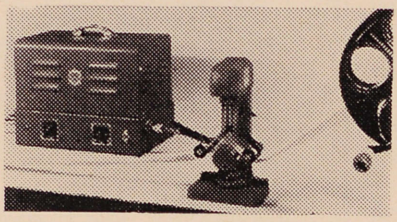

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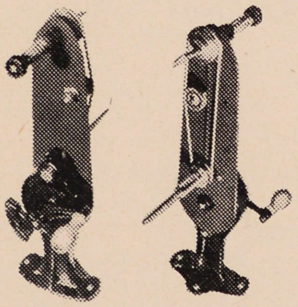

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CONTACT PRINTER

(Continued from Page 375)

Complete daylight operation of the printer is achieved by use of separate detachable feed and take-up magazines of one thousand foot capacity. The fine grain positives are spooled on rewind type flanges, and the film enters the printer head through light-proof traps. Threading of film is similar to that of a projection machine and film travel is from top to bottom. The take-up mechanism of all film flanges consists of overriding clutches which make possible operation in either forward or reverse direction, thus eliminating need of changing belts from one pulley to another.

From one to three films can be accommodated by the printer head movement where contact pressure is maintained automatically. Threading is simple due to individual sprockets and provision of ample space for film loops.

In designing the automatic fade feature it was decided that for extreme flexibility, all the various lengths of fades should be available for instant selection without the need of shifting gears, or making other time-consuming adjustments. As a result, a separate unit was designed for this purpose and built into the printer. It features a bank of control keys, one each for fades of ½, 1, 1½, 2, 3, 4, 6, and 8 feet in length and is indicated at (1) in the accompanying photo. Each key is moved upward to effect a fadein and down to fade out.

With this type of automatic fade control it is possible, for example, to make a two-foot fadeout and, at the full "out" point, instantly fade in, all within exactly four feet. This feature provides extreme flexibility especially in making montage effects. In addition, either the linear or tapered type fade is available when needed. Manual operation of the shutter is accomplished by a separate hand control. The film footage counter is located directly above the dissolve unit which, together with the cue sheet holder in close proximity, contributes to the ease of operation.

Two sources of light are provided. One is a small unit for regular full field printing, indicated at (10) in the illustration; the other consists of a 9″ by 12″ white board illuminated by six reflector-type incandescent lamps mounted on swinging arms, as shown at (11) in the illustration. The latter feature enables operator more easy access to the board. The small lighting unit, incidentally, is swivel-mounted, permitting it to be quickly set in and out of position as desired.

The printer lens is carried in a non-rotating mount which provides a focus range from infinity to unity magnification. Focus position is read on a dial indicator calibrated in thousandths of an inch. With this arrangement, all backlash errors are eliminated.

Four accurate printing speeds are available by means of a combination of gear change and a two-speed three-phase alternating current motor. Stop motion is also incorporated into the drive in both forward and reverse printing directions—a feature which is push-button actuated.

Provision is made for projecting a picture on the matte board by making the back plate of the movement removable and adding a small lamphouse to the rear of the printer head. This makes it possible to more readily locate mattes and follow the action of a scene. Also, by means of this projection feature plus a specially built apparatus for holding 8″ by 10″ plates, dropped shadow title mattes can be made from ordinary titles.

Wipes, moving in any direction, are made either by using film mattes or by means of a gear-driven device located in front of the lens. (See (2) in illustration.) Position of this wipe device is adjustable so that it is possible to obtain any degree of blend between the two picture areas, from soft to sharp. The wipe device can be automatically driven

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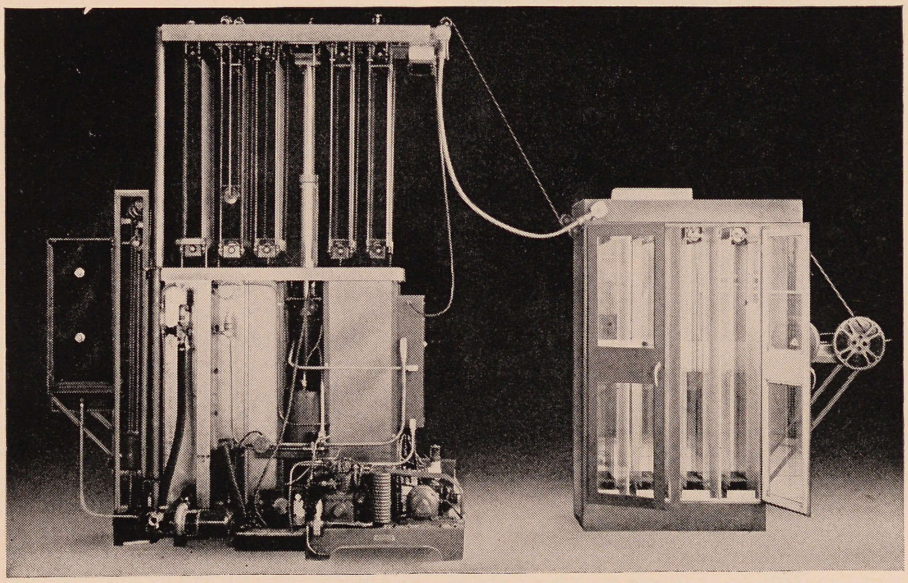

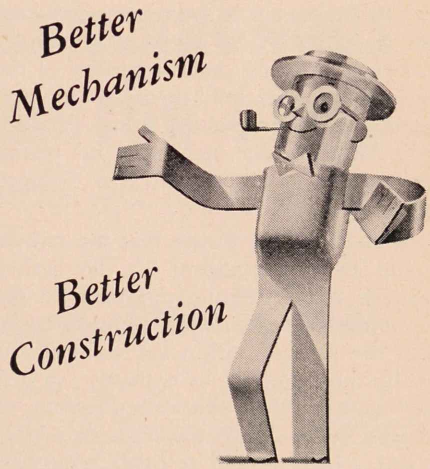

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through a multi-speed gear box built into the printer base.

Aligning and focusing is accomplished by means of a prism-type magnifying viewer. This is equipped with standard film register pins to accept a film clipping, where alignment is to be made by this medium.

Alternating current voltage for the lighting system is obtained by means of variable transformers, continuously adjustable from zero to 135 volts. Dual controls—one at either end of the printer—afford convenience in regulating manually the voltage from transformers, although an automatic line regulator is also employed to insure constant voltage.

The rugged base of the printer contains the motor drive system, stop motion assembly, variable transformers, electrical equipment, etc., all of which are easily accessible for maintenance by means of removable covers on all four sides. ★ ★ ★

EXPONENT OF MOVING CAMERA

(Continued from Page 376)

mood in advance and roughs in his lighting scheme and camera angles accordingly. Actual placement of the lights and camera cannot be done until there has been a run-through of the action on the set—because the director's staging of the sequence may vary somewhat from the action patterns indicated in the script.

LaShelle also maintains that the mood of the lighting is more important than the way any one player looks, and that correct mood in the scene should not be sacrificed to obtain a flattering lighting. This is somewhat of a paradoxical statement in view of the fact that LaShelle is considered tops in the industry as far as the lighting of players is concerned. He lights each actor to bring out the proper personality indicated for that character in the script. He likes to light women subjects with a modeled, third-dimensional effect—shying away from over-diffusion and flat lighting. With a male subject, he strives to bring out the virility of the character through bold cross-lighting that accentuates the interesting structure of the face. Most of the men stars he photographs are delighted with the "rugged look" he gives them.

In line with his theory that the camera should be a participant in the action, LaShelle has a definite approach to the placement of the camera. "I always try to keep the camera within the walls of the set during shooting," he explains, "so that the audience will catch the feeling of actually being on the scene of the action. It gets a bit crowded at times, especially for the camera crew, but the result is more intimate and therefore more *believable* to the audience. When the wall of a room is removed to make room for the camera, the lens becomes a mere onlooker detached from the scene. This is especially true when the longer focal length lenses are used."

Striking composition is another LaShelle specialty. He likes to frame a scene with an interesting foreground object, thus creating a more dramatic visual pattern, and at the same time tying the player in closely with his surroundings. This technique reached a high point in "Laura" when he zoomed in to a close-up of Dana Andrews framed with a bottle of Scotch whiskey. He likes forceful low angles, sometimes placing the camera at floor level, as in "Hangover Square." His use of a wide-angle lens for most filming gives his compositions bold perspective, and adds to the effectiveness of his moving camera shots.

In exterior filming, LaShelle uses heavy filters to darken the sky and lend the scene a more graphic quality. When the scene is in the wrong location for the type of lighting he wants on a player's face, he will box the player in with black scrims but allow the natural background to show through. He will then light the face with lighting units to produce the effect he wants. "You can't move the sun around," he observes, shrugging off the amount of time and effort involved in this technique.

Joseph LaShelle, A. S. C., is typical of the modern Hollywood Director of Photography who must be at all times a composite of artist and technician, a man whose skillful painting with light and shadow goes far toward making the motion picture the finished art form it is today.

SEVEN NEW LENSES

(Continued from Page 384)

held to a minimum, stray light is trapped, and a maximum of image forming light is transmitted to produce better movies.

The new series of Ektar lenses will fit all recent Cine-Kodak 16mm. cameras with removable lenses, as well as most 16mm. cameras of other manufacture. Many 8mm. cameras will take four of these new lenses—the 25mm. f/1.4, the 25mm. f/1.9, the 40mm. f/1.6, and the 63mm. f/2.0.

In most cases, lenses are fitted to cameras by means of adapters. No adapter whatsoever is needed, however, to fit any of these lenses to the Cine-Kodak Special II Camera.

The only reason for using interchangeable lenses on a camera is to change the scale of the picture without the necessity of going very close to or very far away from the subect. Therefore, it was decided, when this new series of Ektar lenses was designed, to produce lenses in geometrical progression. With this basic principle in mind, the new Kodak Cine Ektar Lens series was designed with a common ratio of 1.6 between focal lengths. This will enable the 16mm. movie maker to operate with far greater precision in increasing or decreasing the scale of his picture during filming operations.

As far as the relative apertures of the new lenses are concerned, every effort has been made to give each lens the highest possible aperture commensurate with high quality. The principal objectives in designing each lens were to produce sharp definition over the entire field, and sufficient back focus to eliminate interference with the front of the camera, the shutter, and the lens turret. Insofar as possible, the maximum aperture of each lens has been made one of the standard series, such as 1.4, 2, 2.8, 4, etc.

The series of lenses as finally adopted is as follows:

Focal length	*f-number*	* *Angular Semi-field*
15.8mm.	2.5	21°
25.4	1.9	14°
25.5	1.4	14°
40.1	1.6	9°
63.7	2.0	5½°
101.5	2.7	3½°
152.4	4.0	2½°

*Computed for the standard camera gate, with a 12.4mm. diagonal.

The greatest care has been given to the design of mounts to make the new lenses as uniform in appearance as possible. In all lenses except the 25mm. the focusing ring and diaphragm are located in the same relative positions. Similarly, every effort was made to have a non-rotating barrel, so that the index marks for both the diaphragm and focusing scales would remain in a fixed position at the top of the mount. This proved to be impossible in the 15mm. wide-angle lens, but it was done with all the other members of the series.

Every lens is equipped in front with a suitable screw thread for attaching the standard Kodak Series VI filters, attachments, and lens hoods.

A new type of iris diaphragm representing a considerable improvement over the iris diaphragm used on lenses in the past has been incorporated in these new lenses. The new diaphragm employs special L-shaped leaves designed to give a uniformly spaced scale. Thus equal rotations of the diaphragm ring will alter the image brightness by the same proportion in all parts of the scale. This represents a distinct improvement over the normal type of semi-circular leaf which gives a scale that is very crowded at the smaller end and expanded at the larger end. All lenses can be stopped down to f/22.

The focusing scales on the new lenses are more completely graduated than on any previous lenses. These scales are marked directly in inches for focusing at short distances, and below 2 feet the scales are in red to act as a warning of the need for accurate focus. This makes possible remarkably accurate focusing on subjects at all distances. Most of the new Kodak Cine Ektar Lenses focus way down for magnified closeups of tiny subjects. As an example, with the f/1.4 the movie maker can focus as close as 12 inches and fill the whole screen with some small object, such as a flower, without the use of a closeup attachment.

All marks on the focusing scale, in accordance with ASA Specifications, are measured from the film plane and not from an indefinite point, such as the front of the camera or the front of the lens barrel. This greatly facilitates precise focusing at short distances. Integral depth-of-field scales, contrastingly colored to prevent confusion, show the exact range of good focus at each aperture and at all distances and indicate the degree of precision required in focusing.

In this new series of lenses the serious 16mm. movie amateur and some owners of 8mm. cameras will find the means for attaining much of the photographic perfection for which most are constantly striving. For the professional 16mm. cinematographer, these seven new Ektars will surely be placed at the top of his list of wants, for here at last the 16mm. cameraman has a series of related lenses to choose from that will give him the image quality that has come to be expected of all professional cinematographers.

OLYMPIC GAMES

(Continued from Page 375)

Olympic Film plane. The heat rising from the massive metal roof of the stadium and the shining tops of thousands of parked cars made flying as bumpy as crossing the Dover coastline on a sunny day.

Cameramen Henry Slagter and Arthur Lemming, using a Newall bi-pack Technichrome camera fitted with four lenses in the turret, rigged up a gadget on the camera's viewfinder that would produce a graduated parallax scale for quick and easy correction when lining up a shot in double-quick time.

Production of the Olympic film was personally directed by Castleton Knight, not only in the planning stages but also from the film control center in Wembley Stadium. During the shooting period, he was in telephone communication with all

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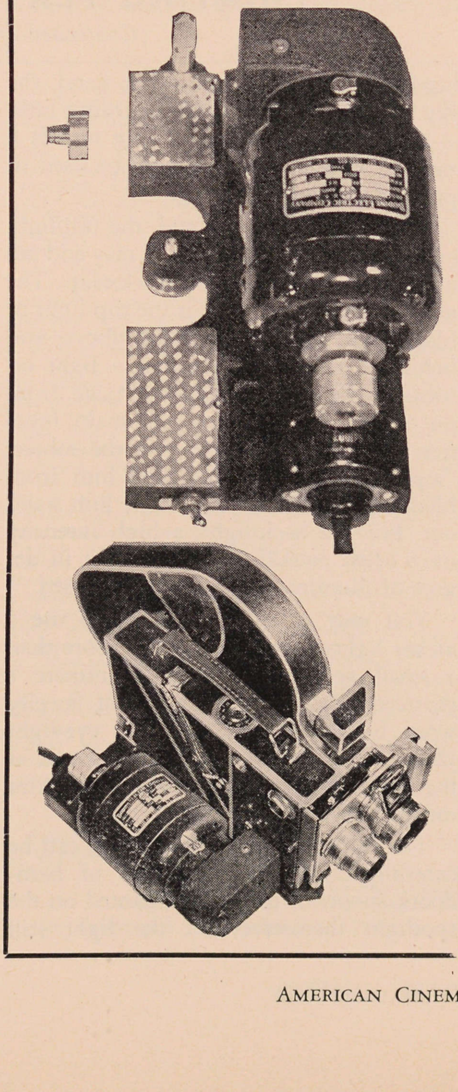

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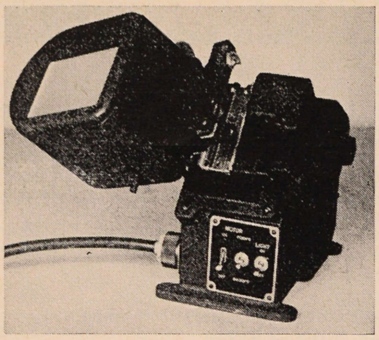

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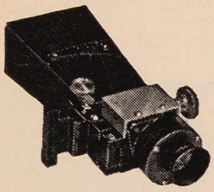

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the camera positions, passing on new instructions, advising on alterations in the continuity of events, arranging for a supply of fresh stock and tackling a hundred and one minor problems.

All of the cameramen wore official uniforms consisting of brown trousers and white sports coats. Every member of each camera crew was provided with a copy of the official program of events and a special typed instruction sheet which indicated what he was to film. With some 20 camera positions established in the stadium, it was obviously necessary to avoid over-lapping coverage and consequent waste of film.

Despite the 20 fixed camera positions, it was necessary to have a corps of "free" cameramen who were dispatched as needed about the stadium to get special shots not indicated in the shooting plans for the day. One would hustle out on the grassy midfield and scale the steel camera tower, haul up his camera equipment, make a series of shots, then scramble down again to be off to some other point in the stadium to catch other action, as instructed by director Knight's communications center. The cameramen in this unit really had to be on their toes.

Filming of the aquatic events in the Empire Pool was carried out by a camera unit supervised by Miss Norma Candy. Three black and white and three Technichrome crews operated to cover these events. High speed shots of the high diving were photographed by a color camera, while a Debrie black and white camera was used for getting slow motion shots at 96 frames per second. A notable achievement was the shooting of underwater scenes during the actual events. To do this, cameramen Duggie Hill and Johnny Gunn fought their way through a maze of brine pipes, crossed over water tanks, crawled on their stomachs through five inches of water and finally set up their Newall camera at one end of the glass port looking into the pool just below the water line. No additional lighting was available here and the color shots were obtained by using a Cooke f/1.3 lens, wide open. Throughout the filming in the pool, the crews had to work under natural light coming through the glass roof.

Thus, day by day, from rostrums, pits, towers and cars, the Olympic Games were filmed. Some 500,000 feet of raw stock were exposed in order to capture every exciting moment of the great display. A great deal of money, an elaborate organization, a vast team of cameramen, editors, sound engineers and laboratory staff were assembled from all branches of the British film industry in order to provide the facilities for adequate coverage of this outstanding international event.

LIGHTING PLAYERS ON THE SET

(Continued from Page 377)

black and white, on the other hand, the sky is practically the limit regarding ratio—and even in normal lighting moods a ratio of at least 1 to 4 should be used to provide proper modeling.

After the key-light and the fill-light have been set, the cameraman may add additional units to polish the closeup. The most important of these is the top-light or black-light, usually mounted above and behind the subject to throw a light on subject's hair and shoulders. Aside from the added artistic touch, the main function of such a light is to give the subject "separation;" that is, to keep him from blending into the set and make him stand out. For the back-light, a high intensity unit, often equalling the key-light in degree of illumination, is invariably used.

You may or may not want to use a kicker light—which is nothing more than a small spotlight used to illuminate a particular facial feature, piece of jewelry worn by the subject, etc. An eye-light placed to one side of the camera and at the subject's eye level, will add an extra measure of sparkle to the scene.

The light falling on the subject can be carefully controlled by means of barndoors, snoots or diffusers mounted on the spotlight themselves. If the light still hits part of the subject that the cameraman wants to subdue, this may be corrected by screening the light off with a gobo, a rectangular sheet of black board or wire mesh, set up between the light source and the subject.

Generally speaking, women subjects look better in closeup if diffused light is used in photographing them. Gauze or light silk screens placed over the spotlights will soften harsh shadows and create a pleasant modeling light. Women with wrinkles or "crow's feet" usually require a more or less flat lighting to avoid accentuating such features. Where further correction is needed, it is a good idea to purposely over-expose the scene (in order to "wash out" the wrinkles) and then correct the over-exposure in printing.

In lighting men, the aim of the photographer usually is to make them appear as masculine as possible. For this reason, it is better to use light without diffusion. Also, less-fill-light should be used so that the character lines and the structure of the face will have more depth and stand out more clearly. With men subjects, also, the key-light may be placed higher and at a more extreme angle to the side of the camera.

Sequences involving special effects in

the long shots should carry out those same effects in the corresponding closeups. If there is a firelight sequence, for example, the closeups should show the flicker of light on the subject's face. This is done by moving a small branch or twig in front of the light source simulating the fire. Cross-lighting, in which the key-light is set to one side of the subject with little or no fill-light used, is very effective in dramatic sequences. Rim-lighting is a very extreme adaptation of this technique and is executed by placing a light directly behind the subject so that he screens it, his form being outlined with light with his face going dark. This particular effect must be precisely executed and is not recommended except in very dramatic sequences.

In lighting players on the set, the threefold objective is to have them adequately lighted for the action, to light them in key with the mood of the sequence, and to make them look good on the screen. If the 16 mm. cameraman approaches his lighting problem with these points in mind, his camera results should compare favorably with those characteristic of the professional photoplay.

BULLETIN BOARD

(Continued from Page 368)

which utilizes a tube differing in characteristics from the familiar image orthicon tube used in RCA television cameras, is intended for use where images are to be transmitted by wire rather than through the ether. It said there are many potential applications for the camera within the motion picture industry. A.S.C. members are checking its possibilities as an aid to motion picture photography, particularly as a means of making pre-shooting studies of action on sets, and for affording the director and others to view the scene and action on a set in true screen perspective as it is being filmed.

•

AMONG A.S.C. members who journeyed to Washington, D. C., recently to attend the S.M.P.E.'s 64th semi-annual convention there, were John Boyle, Loren L. Ryder, and Peter Mole. Mole was installed as executive vice-president of Society in recognition of his contributions to technical advances in the motion picture industry.

•

APPLICATIONS FOR MEMBERSHIP pouring into the A.S.C. in increasing numbers from all parts of the world, has forced the membership committee to invoke a "membership by invitation only," ruling. Unsolicited applications can no longer be considered, nor will further invitations for non-resident membership be extended until the committee has had adequate time to screen the applications already on hand.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912, AS AMENDED BY THE ACTS OF MARCH 3, 1933, AND JULY 2, 1946.

Of THE AMERICAN CINEMATOGRAPHER published Monthly at Los Angeles, California, for October 1, 1948,

State of California } ss.
County of Los Angeles }

Before me, a Notary Public in and for the State and county aforesaid personally appeared Arthur E. Gavin who having been duly sworn according to law, deposes and says that he is the Editor of the AMERICAN CINEMATOGRAPHER and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily, weekly, semiweekly or triweekly newspaper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the act of August 24, 1912, as amended by the acts of March 3, 1933, and July 2, 1946 (section 537, Postal Laws and Regulations), printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, A.S.C. Agency, Inc., 1782 N. Orange Dr., Hollywood 28, Calif.; Editor, Arthur E. Gavin, 1782 N. Orange Dr., Hollywood 28, Calif.; Managing editor, Arthur E. Gavin, 1782 N. Orange Dr., Hollywood 28, Calif.; Business manager, Marguerite R. Duerr, 1782 N. Orange Dr., Hollywood 28, Calif.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.) A.S.C. Agency, Inc., 1782 N. Orange Dr., Hollywood 28, Calif., wholly owned by the American Society of Cinematographers, Inc., a non-profit corporation whose address is 1782 N. Orange Dr., Hollywood 28, Calif. Officers of the American Society of Cinematographers, Inc., are: President, Charles G. Clarke, 1782 N. Orange Dr., Hollywood 28, Calif.; Fred W. Jackman, Executive Vice President and Treasurer, 1782 N. Orange Dr., Hollywood 28, Calif.; Arthur Edeson, 1st Vice President, 1782 N. Orange Dr., Hollywood 28, Calif.; Alfred L. Gilks, 2nd Vice President, 1782 N. Orange Dr., Hollywood 28, Calif.; William V. Skall, 3rd Vice President, 1782 N. Orange Dr., Hollywood 28, Calif.; Ray Rennahan, Secretary, 1782 N. Orange Dr., Hollywood 28, Calif.; John W. Boyle, Sergeant-at-Arms, 1782 N. Orange Dr., Hollywood 28, Calif.

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5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the twelve months preceding the date shown above is—(This information is required from daily, weekly, semiweekly, and triweekly newspapers only.)

ARTHUR E. GAVIN
Editor

Sworn to and subscribed before me this 1st day of October, 1948.

(Seal) H. G. MacKintosh
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(My commission expires June 13, 1952.)

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CURRENT ASSIGNMENTS

(Continued from Page 370)

- IRVING GLASSBERG, "Calamity Jane and Sam Bass," (Technicolor) with Yvonne DeCarlo and Howard Duff. George Sherman, producer.

Warner Brothers

- CARL GUTHRIE, "Somewhere In The City," with Viveca Lindfors and Edmond O'Brien. Vincent Sherman, director.
- ELWOOD BREDELL, "Happy Times," (Technicolor) with Danny Kaye and Barbara Bates. Henry Koster, director.
- WILFRID CLINE, "Two Guys And A Gal," (Technicolor) with Dennis Morgan, Jack Carson and Doris Day. David Butler, director.
- KARL FREUND, "Montana," (Technicolor) with Errol Flynn and Alexis Smith. Ray Enright, director.
- TED MCCORD, "Flamingo Road," with Joan Crawford and Zachary Scott. Michael Curtiz, director.
- JACK CARDIFF, "Under Capricorn," (Shooting in London) (Technicolor) with Ingrid Bergman and Joseph Cotton. Alfred Hitchcock, director.
- SID HICKOX, "Colorado Territory," with Joel McCrea and Virginia Mayo. Raoul Walsh, director.
- CARL GUTHRIE, "Deadlock," (Subsequently retitled "The Side Of The Law," with Viveca Lindfors, Kent Smith and Janis Paige. Richard Bare, director.
- BOB BURKS and WILFRID CLINE, "Task Force," with Gary Cooper, Wayne Morris and Julie Brennan. Delmar Daves, director.

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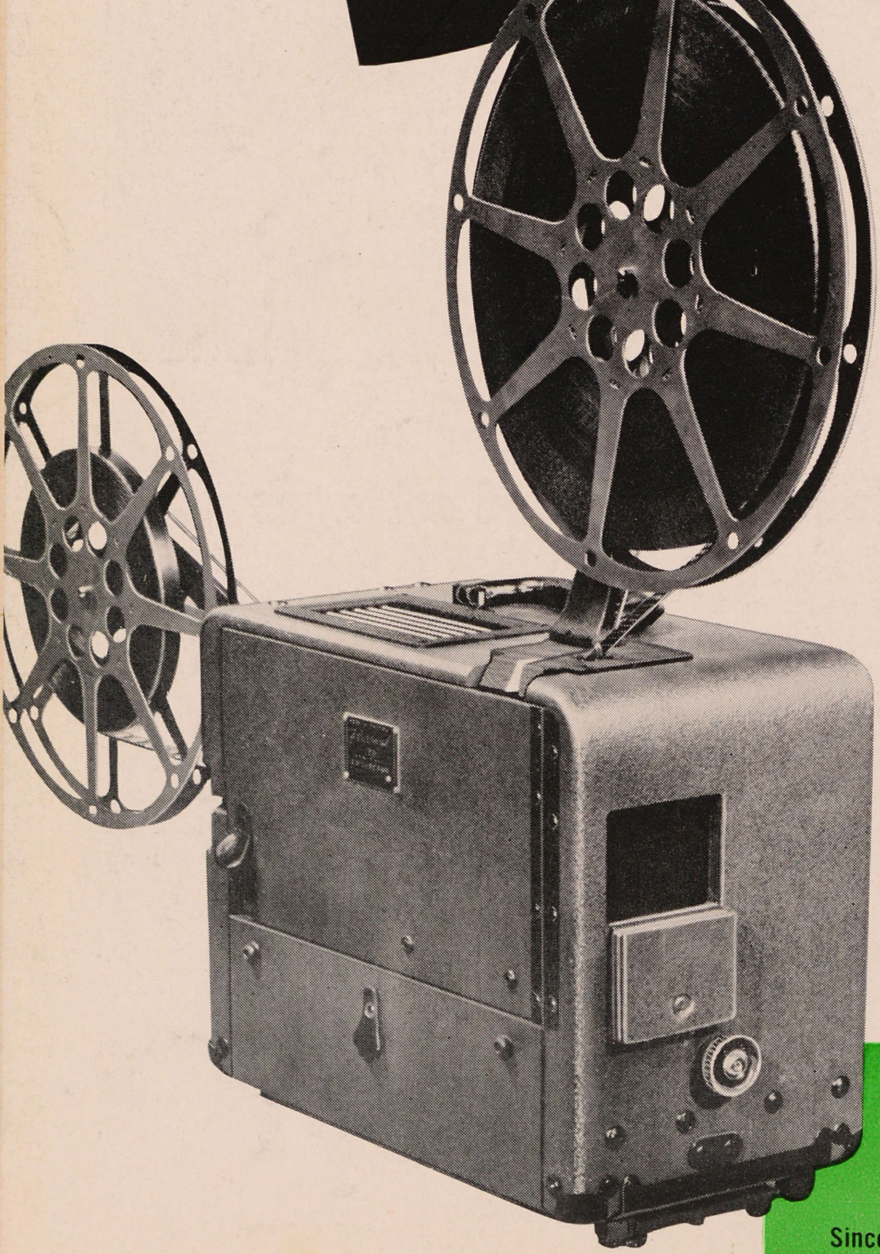

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